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Religion as credible
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RELIGION

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CREDIBLE DOCTRINE

A STUDY OF THE FUNDAMENTAL DIFFICULTY

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A STUDY OF THE FUNDAMENTAL
DIFFICULTY

BY

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'LABOUR AND THE POPULAR WELFARE,' ETC.

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CHAPTER I

THE SCOPE AND METHOD OF THE ENQUIRY

IN this book I propose to deal with the question of how far that theory of life which is associated with the name of religion, is a theory to which, under existing conditions of knowledge, a reasonable man can any longer assent. This is a question in which the ordinary man of the world has just as much concern as the man with the temperament of a saint; and I shall, in discussing it, appeal to the reader's intelligence very much oftener than I shall to his devout emotions.

The subject of
this volume.

Now, writers of books which deal with controversial subjects would in most cases do well to give some indication at starting of the kind of conclusion which they are setting out to establish; but this is specially true of books such as the present, which deal critically with religion, as an element in life or as a theory of it. The reader who begins a book on this intimate but intricate subject, knowing something of the direction in

Chapter I
 The conclusions which this volume aims at establishing.

which the writer intends to take him, has the same advantage over a reader from whom such knowledge is withheld, that a man who with open eyes is being led across a difficult country has over one who is led with his eyes bandaged. Let me say at once, then, that though the arguments which I am about to urge on the reader differ from those adopted by most religious apologists, and will in some ways be unwelcome to some of them, and to some of them profoundly irritating, the object with which I urge them is precisely the same as theirs. It is to exhibit as worthy of a reasonable man's acceptance, not indeed the dogmas of any one religion in particular, but those fundamental doctrines which are equally essential to all religions, and which are, moreover, the doctrines against which modern science, as generally understood, directs its fundamental protests.

Such being my object, let me briefly indicate also the kind of reader whom I specially have in view. As related to religion, men, at the present day, may be broadly divided into three classes as follows: Firstly, there are those who, relying on positive science as the sole source of any real or progressive knowledge, are eager in rejecting the religious view as illusory, and welcome each fresh discovery which supports them in this attitude; secondly, there are those who, convinced that the religious view is true, are determined to maintain that every fact which conflicts with it, either is not a fact at all, or is a fact that has been wrongly

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interpreted; and thirdly, there are those who are doubtful of the religious view or deny it; but who, in doubting or denying it, do so against their will, and are looking about them in vain for some intellectual road by which they may reach again a position of religious certainty.

Chapter I
The class of
reader
addressed.

It is to the doubts, the convictions, the sympathies, of this third, this last class of persons, that I shall, in the present volume, most directly appeal. Each, however, of the two other classes also—the class which, relying on science, is the determined opponent of religion, and the class which, in defence of religion, is attacking the authority of science—will find me, though partly disagreeing with it, yet partly in complete agreement. I shall seek to show that the latter is right in its final conclusions, but is seeking to support them by methods hopelessly futile. I shall seek to show that the former is, in its conclusions, wrong; but that the arguments which it adduces to support them are in themselves invulnerable.

The details of the method by which we are to find our way to reconciling positions seemingly so opposed as these must be left to explain themselves in the course of the following chapters; but something may be said in advance with regard to their general character. Of the various facts and considerations brought to the reader's notice, not a single one, if considered separately, will be new. The reader will recognise each as something already familiar to him, much as he might recognise the

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Chapter I

The faults of
contemporary
controversial-
ists.

items of a forgotten bill in a drawer: but he will probably find that there is one thing with which he is not familiar at all—which the more he reflects on it will cause him the more surprise:—and that is the result which these facts yield, when taken together, and arranged in logical order.

My meaning will become clear when I have briefly called attention to a marked characteristic of the religious controversy of to-day. A variety of arguments are used by thinkers on either side; but on either side it is the tendency of each individual disputant, not to consider the arguments which it is open to him to use, as a whole, or to consider, as a whole, those which are capable of being used against him, but to confine his attention to issues which are artificially limited, and from which many of the factors vital to his real position are missing. We have thus between the defenders of religion and their opponents a series of duels or skirmishes—a kind of guerilla warfare; but nothing that approaches a general or decisive action. In other words, what is wanted at the present day is not the production of facts and arguments that are new, but a sorting, a summing-up, a balancing, of those that are at our disposal already.

Now this sorting, summing-up, and balancing form a wholly different task from that of establishing and formulating such facts and arguments separately. The latter is one which belongs to, and has been very diligently performed by, the professed men of science and scientific thinkers on the one side,

and the professed theologians and theistic philosophers on the other ; but to sort, to sum up, and to balance, what each of these classes has accomplished, is not a task which properly belongs to either. On the one hand, the leaders of scientific thought and discovery represent but one of the two contending parties ; and not only does this fact in itself tend to unfit them for a full understanding of such arguments as support the conclusions of their opponents, but the very habit of mind and the temperament which are favourable to scientific eminence tend to unfit them, in a general way, for understanding the philosophic significance of the facts of which they are themselves the discoverers. The theologians, on the other hand, are in a position that is no better. The convinced theist, and more especially the convinced Christian, is apt to be incapacitated, in proportion to the fervour of his faith, for fairly appreciating the value of a set of arguments and evidences which, in the opinion of those who have marshalled them, reduce his faith to nothingness, and are fatal to everything which he himself holds valuable. He may try to treat them seriously, but he fails to treat them completely. He altogether misses their collective strength, because his main concern is to find in them particular weaknesses.

An accurate estimate or analysis of the positions of religion and science is not, then, the proper work of either the scientific or theological specialist. It is the work of a person much humbler, whom

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Chapter 1
Nature of the
argument here
pursued.

we may call the intellectual accountant. His primary business is not to say things for either side, but to examine and tabulate what either side has to say—to reduce the arguments of each to their clearest and simplest forms; to note and strike out such as are inconsistent with the others; and so to exhibit the entire affairs of both, that the reader may see how on each side the account really stands.

Such is the task, limited and unambitious as it may seem, to which, in the present volume, I propose first to address myself; and though, when we have reached such results as the accountant's method will yield us, I shall not leave them to speak, without comment, for themselves, yet they will in themselves be far more instructive and startling than many readers may be at all inclined to anticipate. Firms and individuals are often vaguely aware that they owe a number of sums, and that a number of sums are owed to them; and when each of these items is submitted to their notice separately, they will at once recollect and recognise it: but as to the totals which are due to them and by them, and their own consequent condition of solvency or insolvency, they find that they were, before their accounts were made up for them, in a state of complete ignorance, or else of preposterous error. And with most of our thinkers who are arguing in defence of religion and in opposition to it, the case at the present moment is practically much the same.

The first task, therefore, on which I propose

The Scope and Method of the Enquiry 7

to enter is to go rapidly but carefully over the intellectual ledgers of both, and draw up some clear statement of the respective assets and liabilities of the scientific philosophers who reject religion, and the theological philosophers who defend it.

Chapter I

The sense in which the word religion is here used.

But here, before going farther, there is one most important point with regard to which it is necessary that I should make my meaning clear, and this is the sense in which I use the word religion. Religion is a word which may with equal propriety be used in either one or the other of two different senses. It may be used to mean an emotional habit of mind, which is commonly described as a certain state of the heart; and also to mean, on the other hand, a mere act of the intellect—that is to say, an assent to a series of doctrinal propositions which purport to deal with matters of external fact. Sentimentalists of various schools, as we all know, often insist that religion is really an affair of the heart only, and that it is essentially independent of an assent to any cold propositions whatsoever. When used in mere rhetorical protest against the wholly opposite view, that religion is an assent to propositions and practically nothing more, such language as this may possess an intelligible meaning; but if we interpret it literally, what it asserts is nonsense. In order that religion in its full sense may exist, it is as necessary that certain assents be added to the element of emotion, as it is that a certain emotion be added to the element of assent. Religion as the

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Chapter I
Dogma and
religion.

supreme emotion we may compare to the arc light, which springs into being between the two carbon points; and religion as an intellectual assent we may compare to the points themselves. The points are not the light; but unless the points were there, the light of the world would never shine out between them.

The awe, the aspiration, the sense of moral responsibility, into which, when analysed, the religious emotion resolves itself, and which men have explained and cultivated as pointing to a personal God, have no more meaning left in them than an inclination to sneeze has, unless we can tell ourselves that this God has a real existence. How can we love or aspire to a nearer communion with an indeterminate Something about which we can assert nothing? How can we seriously hold ourselves responsible for our secret thoughts to Something which, apart from God, we can merely call things in general? What is the meaning of prayer, if prayer is a series of words mouthed into an ear-trumpet with a deaf ear at the end of it? An assent to the proposition that a living God exists who is worthy of our religious emotion, and is able to take account of it, is as necessary a part of religion as is the emotion itself. And with this proposition are connected two others equally necessary, and necessary in the same way. These are the propositions that the will of man is free, and that his life does not cease with the dissolution of his physical organism. If our actions were all of them

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predetermined, there would be in them nothing on which a God could justly adjudicate; and if with the death of the body we utterly ceased to be, it would matter to us very little whether he adjudicated on them or no.

Chapter I
The three
essential
dogmas.

Here, then, we have three distinct propositions, a mere assent to which will doubtless not give us a living religion, but without an assent to which no living religion is possible; and I shall, in the present volume, mean, when I speak of religion, an assent to these propositions as statements of objective fact.

For thus limiting the meaning of the word I have the following simple reason. Not only is an assent to the three propositions in question essential, as has just been said, to every religion, though co-extensive with none; but these propositions form also the sole points at which religion, as apart from revelation, comes into collision with science. In these, says Professor Haeckel, we have "the three buttresses of superstition," which science sets itself to destroy. In its task of emancipating the enslaved spirit of man, it will fight neither with small nor great save with these propositions only. In so far, then, as religion to-day is a subject of doubt or controversy, these three propositions are practically religion itself; and we need, in the present enquiry, trouble ourselves about nothing else.

And this observation leads me on to another. A number of well-meaning writers—the larger part

of them clerical—are daily endeavouring to combat religious doubt by fervent appeals to the emotional element in their readers, as though the decay of faith, which these writers deplore, had its primary source in some deadening of religious emotion generally. This procedure indicates a complete misconception of the nature and origin of the malady it is designed to cure. There is no evidence to show that within the last sixty or seventy years—the period which has witnessed the decay of faith in question—men and women have been born more selfish and sensual, more easily satisfied with the world, and less capable of religious emotion, than were men and women born during less sceptical ages. The change has originated not in a decline of the emotion, but in a decay of the beliefs which allowed the emotion to assert itself. To appeal to a man's emotions, without attempting to justify them, is like trying to enrich him by appealing to his taste for expenditure, when his difficulty lies in his conviction that he has no money to spend. If the religious malady is to be cured, the only way to cure it is by applying a remedy to the actual part affected—by applying it, in other words, not to the feelings, but the reason; and if it only be shown that religion is not unreasonable, we may safely trust the world to find that it is still attractive.

CHAPTER II

THE FALSE AND THE TRUE STARTING-POINT OF THE CONTROVERSY BETWEEN RELIGION AND SCIENCE

LET us begin our enquiry, then, by considering, under its widest and most obvious aspect, the way in which primarily religion and science touch, and, so touching, oppose each other with contradictory doctrines. They touch and oppose each other primarily as rival methods of explaining, not solely or mainly the life and nature of man, but the universe taken as a whole, man forming a part of it. Here for the moment, of the three intellectual propositions, which constitute religion according to our present definition of it, we need consider only one—the proposition which deals with God. The doctrine of religion, as a cosmic doctrine, is this—that the universe, man included—the organic world and the inorganic—has been made and is sustained by an intelligence external to, and essentially independent of it. Science, on the other hand, maintains that the universe is self-existing, and that all its phenomena are different modes or movements of a single substance energising in accordance with its own

The first point of contact between religion and science.

Chapter 2
 Scientific
 materialism in
 the past.

laws—a substance to which, when considered from the commonest point of view, every one gives the familiar name of matter; and hence, for a considerable period after science had developed sufficiently to oppose itself to religion as a general or cosmic system, it was held by its advocates no less than by its enemies to be a system of materialism opposed to a system of spiritualism.

Now, so long as things continued in this condition, the religious thinkers, with their doctrine of an intelligent God, occupied, when dealing with the sum of existence generally, a far stronger position than that of their scientific opponents. It was easy to expose the crudity of the doctrine that life and consciousness, and the orderly conditions under which they make their appearance, were merely modes of a substance itself entirely lifeless—consisting of little pellets whose sole observable properties were extension, solidity, figure, and a tendency to attract and repel each other. This doctrine, nevertheless, in spite of all attacks on it, remained the doctrine of scientific men and their followers during what we may call the earlier scientific period, because they had, however accomplished otherwise, too little philosophy to understand its deficiencies. They were, in fact, materialists in the true sense of the word; and being so, they involved not only themselves as thinkers, but science also as a system affecting to explain the universe, in the kind of intellectual discredit which rightly attaches itself to materialism.

Such, speaking broadly, we may say was the general position during the period when science was making its first striking advances; and such it continued to be till some fifty years ago. It is true that a process of thought which is gradual and never ceases can nowhere be accurately divided at any definite point; but we may, with substantial accuracy, look on the time just named as that at which this position began to be appreciably modified; and it has since then undergone a complete change. Whatever religious philosophers may have learnt or not learnt from science, science has at all events been driven to go to school with philosophy, which at first it neglected or scouted with a boorishness born of ignorance; and the result of its education is now seen to be this—that the materialism which it was content to profess or assume yesterday is to-day universally abandoned by it; or rather is transfigured into something which is the opposite of its former self.

Materialism, in fact, with the old opprobrium attached to it, has practically lost its place among the terms and the ideas of controversy. No man of science who can make any claim to being a thinker, or is anything more than an expert but half-educated specialist, is now a materialist in the old sense of the word. The opposition between science and religion, though not less acute than formerly, is no longer an opposition between a materialistic philosophy and a spiritualistic. It is an opposition between a monistic philosophy and a

dualistic. The question which science proposes as the subject of its debate with religion, is not whether spirit or matter is the whole or the higher part of the universe, but whether the universe, as accessible to our observation and experience, consists of only one order of things or of two.

For the benefit of the reader who is without philosophic training, I will try to make this important point clear. To the ordinary thought of all of us—of fool and philosopher equally—matter and mind seem sharply contrasted things; and mankind for ages entirely failed to realise that the contrast between them is really by no means what we naturally take it to be. But many of the greatest discoveries, when once made, become truisms; and the truth, in the present case, is a discovery of this kind. Even those who have been least accustomed to reflect on such matters at all can now be brought to see, with a little mental guidance, that the contrast between mind and matter, which we still accept, and rightly, in the practical business of life, does not correspond more closely with actual facts, than the statement, common with all of us, that the sun sets and rises, which, though it conveys a truth, we yet know to be false.

Our shortest cut, perhaps, to a true view of the case, will be taken by selecting one familiar quality of all natural things, which we commonly regard as part of them—namely, colour; and then considering the condition of those who are colour-blind. Things, which for the mass of mankind are green or red or

blue, wear, for the colour-blind man, a widely different aspect. It is obvious, therefore, that colour, which we all of us in an ordinary way impute to material objects, as evidently belonging to themselves, is really an effect produced by them in our own consciousness. It cannot inhere in the objects, for these may remain unchanged, yet the colour imputed to them by different men will be different. And with taste and smell and sound the case is just the same. We are accustomed to say that sugar is itself sweet, that a rose is itself fragrant, and an organ, when played, sonorous. But let any of us have a bad cold in the head, and for us the rose and the sugar are fragrant and sweet no longer. Let any of us be deaf, and for us the organ's pipes are voiceless. We need only suppose that all sentient beings are reduced to these conditions, which experience shows to be possible, and taste and smell and sound will disappear from the universe altogether. Half of the properties which we attribute to matter will be gone; whilst if we strip ourselves in imagination of every sense successively, and finally of consciousness itself, matter regarded as a thing which we can grasp, experience, and describe, will fade away like a phantom, and cease any longer to exist.

The inexperienced reader will probably think this a paradox. It is not meant, however, that, with the destruction of consciousness, the thing which we call matter would cease to exist actually. It is true that even this opinion theoretically has

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 Matter *per se*
 unknowable.

been defended by certain philosophers; but practically none of them—not even Berkeley or Fichte—has doubted that there is a world—a something—outside and independent of ourselves. All that is meant here is that the thing which we call matter, considered apart from any conscious beings apprehending it, would lose all the qualities in virtue of which we are accustomed to think of it as material. Nothing would remain but a nexus of abstract relationships. The apples which fell to the ground and the earth which attracted the apples would be no longer the solid and familiar things we know. They would have lost what we call their substance, and all their concrete qualities. They would—to use a very inadequate simile—be like invisible packing-cases enclosing unimaginable goods. In other words, the entire external universe, which is the subject-matter of science, and which, for convenience' sake, we call material, is, apart from its relation to mind, simply an unknown something, to which our conceptions of matter, as contrasted with mind, and excluding it, have not only no warrantable, but no thinkable application. It is in itself, so far as our own faculties are concerned, precisely what Mr. Herbert Spencer has defined it as being—that is, the Unknowable. All the facts and laws which the methods of science reveal to us are merely such modes of the Unknowable as are open to the apprehension of man: much as the motions of a curtain agitated by a hand behind it are, for a spectator, modes of something in movement; but

what that something is—whether a hand, a draught of air, or a cat—the spectator is unable to see, and has no means of knowing.

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unknowable.

Mr. Spencer's doctrine of the Unknowable has been the subject of many attacks at the hands of hostile, and especially of religious critics; and, as we shall see by and by, he no doubt has associated it with much incomplete and self-contradictory reasoning; but it is in itself merely a most striking expression of a truth which his critics—religious and irreligious alike—perceive and assert as clearly as he does himself. With regard to the point before us—namely, our utter inability to know what the something is which we study under the guise of matter, not only is there an agreement amongst all abstract thinkers, but to-day there is an equal agreement amongst men of science also. Their old, their crude doctrine, that mind is a product of matter, they now completely metamorphose by adding that, with even greater truth, we may look on matter as a manifestation of mind.

It is not possible here, and indeed it is quite unnecessary, to deal with this question, as a philosophic question, exhaustively. Enough has been said to enable the ordinary reader to grasp the one broad fact which at present alone concerns us. This is the fact that the man of science to-day—or, if any one still prefers the word, the materialist—when he speaks of matter, as he is still compelled to do, does not mean by matter a lifeless inert mass, or an infinite totality of lifeless inert particles.

Each particle, each atom, is for him a form, an aspect, a manifestation, of an inner unknown substance, which is the source and cause of energy, force, movement, just as it is of solidity, weight, and figure. "The final outcome of the speculation," says Mr. Spencer, "commenced by primitive man, is that the Power manifested throughout the universe, distinguished by us as material, is the same Power which, in ourselves, wells up into consciousness. The conception to which science tends is much less that of a universe of dead matter, than of a universe that is everywhere alive." And here, again, is the case as put by Professor Haeckel, who is popularly looked upon as the very choregus of materialism, and who is certainly second to none in his opposition to religion. Science, he says, as it now offers itself to mankind, has nothing to do with "the materialism that denies the existence of spirit, and describes the universe as a heap of dead atoms." On the contrary, it holds that "whilst spirit cannot be operative without matter, so matter cannot be operative without spirit." It maintains, with Spinoza, "that matter, or substance infinitely extended, and spirit, or matter sensitive and thinking, are the two parts or properties of the one substance universal—the substance which embraces all things—the divine essence of the world." Indeed, Professor Haeckel elsewhere frankly admits that the doctrine of modern science in many ways coincides with Deism, and that if it were not for certain associations practically

inseparable from the name, it would not be improper to call this substance God.

The supreme mind of science and the God of theism.

Is science at last, then, the reader will perhaps ask, gradually coming round to some sort of agreement with religion? The very reverse is the case. The difference between the two was never more marked than now. The God of contemporary science—if we may use the name for the moment—though identical with the God of religion under certain philosophical aspects, is a philosophical God only; and considered in connection with religion, is not only not the religious God, but, in every practical sense, is his irreconcilable opposite. God, as religion defines him, although he has created the universe, and is present throughout every region of it, is nevertheless independent of it; he exists in perfection apart from it. It, on the other hand, exists only in obedience to his intelligent will; and he might, if he pleased, annihilate it, or reconstruct all its laws. He, moreover, being possessed of an eternal and transcendental consciousness, takes constant cognizance of each and of all its processes; and thus, in especial, there obtains between the consciousness of human beings, and the universal cause of existence, a relation analogous to that which obtains between man and man. But the universal substance, or matter, as modern science conceives of it, even if we allow ourselves to give it the name of God, is not made by God; we cannot even say that it is permeated by him. It is nothing less and nothing more than an aspect of

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God—a manifestation of his energy, the laws and eternities of which he could no more alter than he could alter his own nature, and of which he could not divest himself without ceasing to be. Moreover, consciousness, as we know the phenomenon, instead of being attributable to the universal substance as a whole, only emerges gradually under certain ascertainable conditions, at certain minute and disconnected points, which we call individual lives. Thus, since on this theory the universal substance has no more free will than a river or an electric current, since it has no consciousness, and consequently no moral qualities, since there is between it and man as much and as little connection as there is between the sun and the maggots in a dead dog, and since it knows less about man than man knows about it, it possesses nothing in common with the ethical God of religion but the quality of vitality and the quality of profound mystery.

The main fact, however, on which I here desire to insist is the fact that by thus recognising as a mystery the substance with which it deals,—by recognising it as a substance which is, in a sense, living, and is thus the vital source of its own movements and manifestations,—science has placed itself philosophically in a wholly new position; and the old objections urged against it with equal ease and justice, in the days of its crude materialism, have now lost their force. The doctrine of substance, in short, may be erroneous, but it is, in its modern form, not obviously irrational.

The moment we realise this, we shall see what else might escape us. We shall see, even though we may be convinced theists ourselves, that the doctrine of substance does, within certain limits, explain, if not all phenomena, at least an enormous part of them. It explains, in fact, all the phenomena of the lifeless or inorganic universe; and, within limits, it not only explains them, but it forms the only hypothesis on which any explanation of them is possible. Whether the energies or forces, in virtue of which matter moves, be really part of its essence, or imparted to it by some outside creator, they are at all events inseparable from matter as a subject of human knowledge; and their connection with matter is, for us, as certain and uniform as it would be were they and matter one single and indissoluble thing. This truth, in a striking way, has been expressed by Cardinal Newman, who says that science is necessarily atheistic, "for the very reason that it is not theology"; and all modern defenders of religion are practically of the same opinion. Practically, if not theoretically, when considering the inorganic universe, they believe in the sufficiency of the monistic doctrine of substance; and that they do so is proved by the fact that not one of their views or expectations with regard to any past process, such as the evolution of the solar system, or any present or any future process, such as the use or generation of electricity, or the formation of crystals, or the occurrence of an eclipse, would be in any way affected by their dropping

their doctrine of an independent God altogether, and definitely putting the doctrine of a self-energising substance in its place.

There is one argument, and one argument only, deducible from a study of the inorganic universe as such, which seems in any way to qualify this conclusion; and it does in reality merely confirm and illustrate it. The argument I refer to depends on what is called the theory of Entropy. According to this theory, in the words of Professor Haeckel, "the energy of the universe, although it is absolutely constant, is empirically of two kinds, one of which (namely, heat of the higher degree) is partly convertible into work, but the other is not. The latter energy, converted into work already, and distributed among the cooler masses, is irrecoverably lost so far as any further work is concerned. As, therefore, the mechanical energy of the universe is being converted into work continually, and this cannot be reconverted into mechanical energy, the sum of energy or heat must gradually tend to be dissipated, in the sense that all differences of temperature will disappear, and heat will be evenly distributed through an inert mass of motionless matter." This means, when expressed in a less technical form, that, whilst the universe is a machine which, having been once set going, produces every one of its innumerable phenomena automatically, it is nevertheless a machine which is running down, and does not possess, so far as we can see at present, the power when it comes to a standstill of ever winding itself up again.

Hence it is argued that its processes, as we know them now, point to the fact that it must, at some remote period, have been wound up and set going by some Power or other of which science finds no trace in the actual processes themselves.

The universe
like a clock
running down.

It is true that certain physicists—Professor Haeckel amongst them—reject the theory of Entropy as being, in its wider application, illusory ; but since others equally eminent maintain that there is no escape from it—so far at least as our present knowledge extends—it is necessary to consider how it may bear on the point at issue.

We can perhaps hardly be surprised that many theistic writers have hailed it as valuable evidence in support of their distinctive doctrine. But whatever may be its scientific or strictly philosophic significance, it has no religious significance, if we take it by itself, at all. It does nothing to suggest the existence of such a God as religion postulates. The only cause that can be inferred from it, other than the monistic substance, is a cause which is as wholly incapable of any direct relation with man, or with any of the events or processes which derive from it their initial impulse, as it would be if it did not exist. In fact, the theory of Entropy, from the point of view of the theist, merely brings us back to the place from which just now we set out to consider it. If it forces us to assume the existence of a God or a second cause of some kind, in order to explain philosophically the inception of the cosmic process, this is a God who as an hypothesis is superfluous for

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All thinkers are practically monists, so far as concerns the inorganic universe.

the purposes of science, and who has as an object of faith nothing to do with religion. Indeed, if we allow ourselves to regard the theory of Entropy as throwing any light on the character of such a God whatsoever, the character with which it invests him is the fatal and absolute opposite of that which it is the essence of every religion to impute to him; for it exhibits him as having made the cosmos with no other demonstrable purpose than that of ending it in universal and indiscriminate death.

And now let me put the case in a way that is simpler still. All physical science ultimately consists in the resolution of a vast variety of things into simpler and ever simpler elements, until as a matter of theory, if not of accomplished experiment, all the empirical elements are at last reduced to one. Such being the case, then, it is hardly necessary to say that not only no ordinary man, but no theologian of to-day, to whatever school he may belong, questions the validity of the scientific method, or fails to assent to the broad conclusions reached by it, so far as they refer to the world of inorganic matter. The defenders of religion to-day—orthodox and liberal alike—admit as fully as their scientific opponents that the inorganic universe is essentially one thing; that all its phenomena are the results of the same underlying principle; that it is internally an example of absolute monism. Accordingly, if we had only the inorganic universe to deal with, God, even if he existed, would for us be a negligible quantity. The religious philosopher would be concerned with him just as little as

the scientific, for everything in that case would be obviously a mere mechanical process—a process of which God would at best be a passive spectator; and there would, moreover, be nothing alive but himself, between which and himself any living relation might be possible. This limited universe, however, is not the universe that exists. It is merely a part of it, artificially separated from the other part, which other part alone makes the whole worth explaining, and brings on the scene thinkers, scientific or religious, to explain it. The universe, in fact, comes to be of interest to ourselves only, because at a certain point of its history amongst its inorganic phenomena there appears the phenomenon of life; and at this point it is that, under the intellectual conditions of to-day, religion and science become for the first time practically opposed. A single cause, a single self-energising substance, underlying matter and inseparable from it, has hitherto sufficed for both of them; and if either of them has duplicated this cause by postulating a God behind it, his God is one who, as the source of any new activity, has never intruded himself into the interior of the cosmic system. But now the situation changes. As soon as organic life appears, like a stranger, in the heart of a world once lifeless, the religious thinker declares that this new and unexampled phenomenon cannot be due to the same cause or substance as that which explains and unifies the whole inorganic environment, but forces us to admit the intervention of some new agency from without. The man of science, on the other

hand, completely denies this. He maintains that the cause which sufficed to explain the inorganic environment is equally capable of explaining the living organism. He maintains that between organic and inorganic phenomena there is no real, but only an apparent break, and that the same self-energising, the same universal substance, reveals itself in, and is the only cause of both. In other words, whilst the man of science still remains a monist, the religious thinker reveals himself in his essential character of a dualist.

Here, however, both the disputants are at present guilty of an error which is equally prejudicial to both, and which tends to involve in much needless confusion the only vital questions really at issue between them. I have said that the phenomenon of the first appearance of life is the phenomenon with regard to which, in attempting to explain the universe, the dualist and the monist first practically differ. In nearly all modern books of dualistic or religious apologetics, which attempt to meet science by attacking it on its own grounds, the impossibility of explaining life on ordinary principles is ostentatiously placed in the forefront of the argument. Our religious apologists indeed all seem to hold the opinion that if they can gain a victory over science here, and show that to account for life some second cause is required, they have gained their case in their first engagement with the enemy. For the second cause they refer to is of course none other than God, who has hitherto, if we

may so speak, been kept out in the cold—forgotten and disregarded because there was no work for him ; but who now is brought back into the middle of things as an active and indispensable principle. Our men of science also have adopted the same view. They have not only taken the appearance of organic life as a test of the truth of the monistic doctrine generally, but they have also allowed that if here the monistic explanation breaks down, the old religious hypothesis is the one and only alternative. That such is the case could be avowed more clearly by no one than it is by Professor Haeckel, who in his latest work writes thus : “If physical and chemical forces,” he says, “are alone at work in the entire field of inorganic nature, whilst in the organic world we find regulative or dominant forces, we must at once abandon the mechanical in favour of a teleological system ;” and, still more emphatically, he declares in another place, that “to reject abiogenesis (or the development of the organic from the inorganic), is practically to admit a miracle,” and to open the gates once more to the whole religious superstition, from which the human mind with so much labour has freed itself.

Now the point which here I desire to impress on the reader is, that in adopting this attitude both parties are wrong, and start by obscuring, instead of rendering clear, the only important question really at issue between them. If monism is insufficient to explain the appearance of life, of course monism is shown to be so far an incomplete theory ; but the

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A false start in
the argument.

fact of its insufficiency, were this shown never so clearly, would be no proof of such a dualism as religion seeks to establish; nor, on the other hand, would this dualism be disproved, discredited, or even touched, were the doctrine of abiogenesis placed beyond all doubt by a professor manufacturing germs on a platform before a daily audience.

We shall see how this is by resuming the thread of our argument, and considering how life is treated by monist and dualist alike, when once they have taken its appearance on the scene for granted, and recognised its origin as a point on which they agree to differ. We shall find that on this, just as on a former occasion, their difference has practically a mere academic character; and that, having been duly signalled, it is no further insisted on. We shall find that the religious thinker, having invoked the assistance of God to account for the advent of life in its first rudimentary form, to all intents and purposes shows him out of the room again, like a doctor had in to vaccinate the earth with protoplasm, and dismissed with a civil good-morning, as soon as the deed is done. The moment the door is closed on him, the dualist and his monistic adversary, no longer embarrassed by the intruder, put their heads together again, and proceed with their study of life, as if nothing had ever divided them, until the time comes for the consideration of man, as the last, the crowning result of the gradual vital process. The essential difference between them

begins to appear then—then, and not before. Let me show the reader why.

The existence of organic matter in its first rudimentary form having been recognised as something that has been introduced into the inorganic universe somehow, the dualist admits, no less than the monist, that its gradual evolution from its lowest form to its highest takes place in accordance with laws no less certain and calculable than those which prevail in the sphere of the chemist, the geologist, and the astronomer. It is only when these inquirers come to consider the human being that the latent difference between their respective philosophies issues in a form on which anything worth discussing depends. Then the second cause postulated by the religious thinker is no longer passively lost in the first cause postulated by both. It detaches itself from this according to the religious doctrine, and produces effects, hitherto unparalleled, of its own. It produces the human soul—a phenomenon differing from all those that have led up to it, in the fact that its behaviour is emancipated from the causes that control the others, and that, from the moment of its first appearance, it is capable of existing in independence of them.

That here we have actually the first point of doctrine with regard to which religion comes into conflict with science, and that the preceding question of organic life as such, whichever way it may be answered, leaves the religious position neither destroyed nor established, but not even so much

as touched, can be easily made intelligible to even the least careful of readers.

In the first place, the essence of religion, regarded as a doctrine of God—the doctrine which one side fights for as a faith, and the other side attacks as a superstition—consists in the assertion, not that the phenomena of the universe are ultimately due to a cause other than the monist's substance, but that this cause is a cause of a very specific kind; that it is personal, intelligent, and, above all, morally good, and that it entertains some preferential and benevolent regard for man. Now it is easy to show, as we shall see more clearly hereafter, that, even if we are compelled by the phenomena of organic life to admit the existence of a cosmic cause of some kind, which is not included in substance, but which—we may presume—includes it, this cause, so far as our present argument carries us, is as purely philosophic and non-religious in its character as the cognate cause inferable from phenomena that are not organic. If the argument does not debar us from regarding it as a personal God, it does not compel us to do so. It does not even invite us. Still less does it compel or invite us to ascribe to it any ethical character, or any preferential interest in the destinies of the human race.

But this is not all—it is not even the most important part—of what, in the present connection, must be said of the religious position. Religion does not consist of a doctrine of God only. An

equally vital part of it is its doctrine with regard to man. It is, in fact, in its totality, not so much a doctrine of either, as a doctrine of certain relations subsisting between the two; and unless its specific doctrine with regard to man be correct, the relations in question are impossible, and religion loses its meaning. Now what religion maintains with regard to man is, as we have seen already, first, that his soul is immortal, and secondly, that he is a free agent, answerable for his own actions. Or we may, for our present purpose, express the two doctrines in one—as the doctrine that man's life, in its destiny, and its energies alike, is mysteriously emancipated from the action of those uniform laws which prevail elsewhere throughout the whole knowable universe. The mere acceptance of a cause other than the monist's substance, to explain the phenomena of life as associated with those of matter, does nothing to show that man, considered simply as a living organism, has any of these peculiarities, which religion insists on claiming for him. The reality of the cause in question might be proved beyond all doubt, without the defender of religion having established any one of the points which he himself is specially pledged to assert, and which his opponent is specially pledged to deny.

To see that such is the case, we need merely remind ourselves of a fact which will, in the next chapter, be abundantly illustrated by examples. The fact is as follows: that throughout the present discussion, the rights and wrongs of which we are now setting

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 The uniformity
 of organic phe-
 nomena.

ourselves to consider, the theologian and the man of science are standing on the same ground. The man of science is not rising to the level of the theologian. The theologian is descending to the level of the man of science. He provisionally closes his eyes to any other sources of knowledge, and admits as fully as the man of science himself, that the methods of science, so far as they go, are valid.

Accordingly, whether living organisms are or are not differentiated by the presence of some principle which is absent in inorganic matter, the theologian admits, no less than his opponent, that they do, at all events, so far as science can study them, manifest alike in their behaviour and the whole history of their development the operation of causes as absolutely rigid and uniform as those which prevail throughout the rest of the sensible universe. Were this uniformity wanting, biology would be just as impossible as would, under the same conditions, be all other sciences, such as astronomy, geology, or chemistry; and even if we grant that biology forces us to acknowledge a break between the phenomena of organic and inorganic matter, it begins by assuming, and ends by elaborately proving, that all organic phenomena are themselves essentially one. If we figure to ourselves the processes of the inorganic universe as a train of moving wheel-work, the wheels of which are made of brass, we may figure to ourselves the processes of organic life as a second train of wheel-work attached to it, whose

wheels are made of brass coated or alloyed with aluminium; but the wheels of the latter, when once they are set in motion, move with a regularity as complete as do those of the former, and the movements of both become parts of one practically inseparable process.

Thus the supposition that the religious doctrine of man could find any support in a demonstration, however exact, that a cause operates in the production of organic phenomena which does not operate in the production of inorganic, is a supposition which is altogether mistaken. Such a demonstration would, so far as it went, leave untouched—or rather it would help to illustrate—the very conclusion against which religion protests. While presenting life to us generally as some hyper-physical principle, it would leave untouched the following empirical facts—and such facts are all that the theologian here appeals to—firstly, that the individual life—the life of the separate organism—dies, disappears, and never reappears again; and secondly, that all separate lives, of whatever degree or kind—from the life of a martyr down to that of a sponge—are as truly parts of one general process as the various figures that emerge out of the Strasburg clock are parts of the general mechanism which causes the hands to move, and have as little responsibility and as little will of their own.

The controversy, then, about the origin of organic life as such, which both the opponents and the defenders of religion mistakenly regard as so important,

has nothing to do itself with the problem of religion whatsoever. The dualist's view, so far as this point is concerned, will not lead us, if proved, to a conscious and benevolent God, or to man as a being, between whom and such a God there could be any such moral relation as that which theism postulates. The monist's view, if proved, will of itself do nothing to destroy what Professor Haeckel calls "the three buttresses of superstition." In other words, at this stage of our inquiry the controversy between religion and science has not even begun. It begins, as we shall see more clearly in the following chapter, not with the phenomenon of life, but with the doctrine of a life that is immortal—not with a mere vital movement, but with a vital movement that is free.

And now, let me sum up what has been said thus far, by putting it in a simpler and more familiar form. Were any of us asked suddenly what religion, as a doctrine, is, he would probably say that it is a doctrine of God, in the first place; and, only in the second place, would he say that it is a doctrine of man. And if we were dealing with religion as a doctrine which we looked on as already proved, he would be right in placing its parts in this, their logical, order. But when we are considering it, not as a doctrine which has been proved, but as a doctrine the proofs of which we are engaged in seeking, and which we have to establish in the face of what seems contradictory evidence, the above order must be inverted. The doctrine of man takes

the first place. The doctrine of God is necessarily relegated to the second. All theologians admit that God's existence can be known to human reason by indirect means only. We have to infer it from facts of which our knowledge is immediate; and of such facts the first and most important is our own nature. Man regarded as the possessor of an immortal soul, and a free will which makes him responsible for his own actions, constitutes the speculum in which first the Divine Sun is perceptible. If we deny to him such a soul, and such a will,—if we believe him to be nothing more than a vanishing bubble on the face of the universal substance—a marionette that moves as a part of the universal clockwork,—the speculum is darkened. There is no sun reflected in it.

In discussing, then, the reasonableness of religion, as confronted with the discoveries of science, we will take first the religious doctrine, or rather doctrines, of man. We will begin with the doctrine that he is immortal, or—if we prefer to say so—that he has in him some principle independent of his physical organism; and secondly, we will take the doctrine that this principle is free, or mysteriously disconnected from that sequence of cause and effect which obtains elsewhere throughout the whole knowable universe. Then, thirdly, we will turn to the doctrine of God, to whom religion ascribes in an infinite degree, what it ascribes to man in a finite; namely, freedom, self-causation, and an independence of the monistic substance—of the monistic substance, or, in other words, of matter.

In order to show how these doctrines may be defended successfully and exhibited as worthy of a reasonable and sincere belief, our first task must be to examine the methods of defending them generally employed by the religious apologists of to-day ; and to realise that they are worthless and hopeless, and do far more harm than good.

CHAPTER III

THE ORIGIN OF ORGANIC LIFE

CONTEMPORARY defenders of religion meet the negations of science, and endeavour to establish the truth of their own doctrines, by two essentially distinct, but not necessarily incompatible methods. One of these is metaphysical or transcendental. The other, except for its results, does not professedly differ from that of science itself.

Two kinds of contemporary apologetics.

The former—the metaphysical or transcendental—we will consider by and by. For the present it will be enough to describe it in a few words, and provisionally to dismiss it from our minds. It is a method adopted by a small school of thinkers only; and to-day it has little effect on the religious attitude of mankind. Nor indeed is this to be wondered at. The metaphysical defenders of religion seek to deal with the controversy by lifting it into a region which, to most men, seems a species of cloudland, where words and thoughts lose all their ordinary meaning. Thus, one of the latest writers of this school sums up his case for religion in the following remarkable language. So far as the “world of existing things”

is concerned, science, he says, is right. There is in that world no trace of God or an immortal soul. This admission, however, in no way conflicts with the fact that the opposite doctrines of religion are in reality true; for religion deals with "the real" world, and the "real" world has no "existence"; whilst science deals only with the existing world, and the existing world has no "reality." It is no doubt true that language of this kind is far from being the mere raving which at first sight it seems to be. It represents, on the contrary, an exercise of extreme mental ingenuity; and although our metaphysical apologists are practically wasting their pains as completely as if they were circle-squarers or inventors of perpetual motions, it will be necessary for us, when the time comes, to consider their argument carefully. For the present, however, we will put their whole method aside, just as the world at large does, and confine ourselves to that which, irrespective of all sectional differences, is adopted to-day by our religious apologists generally—the only apologists who secure any appreciable hearing.

These men, unlike the metaphysicians, though they admit that ordinary knowledge of things is in its nature incomplete, nevertheless admit that it is true so far as it goes, and gives us as much of the truth as our faculties enable us to comprehend in the sphere of religion and in the sphere of science equally. Thus they maintain that if God made the inorganic universe by one act of his power, and introduced into it life and the human soul by subsequent and

separate acts, these acts all belong to the same sphere of reality as that to which belong the processes of the universe to-day—the experiences of our own lives, and the past events of history. If the soul is real, it is real in the same sense in which the body is. If it is a fact that we shall—each and all of us—be personally still alive a thousand years from now, this fact is one of the same order as the fact that we shall most of us probably be alive to-morrow. Accordingly, these apologists in their whole encounter with science take their stand, as I have pointed out already, on ground the same as that which is occupied by science itself. They attack the conclusions of science only because they assume the data of science.

Chapter 3

The ordinary religious apologists of to-day.

In order to illustrate the situation we will, before proceeding to what is properly the first subject of our enquiry—that is to say, the doctrine of an immortal element in man—consider again, and in more detail than formerly, the manner in which most of our apologists treat the question of the origin of organic life. We shall thus more completely realise the standpoint from which they argue, and also the extent of the error which both they and their opponents commit, in imagining that here the dispute between them begins.

When our aim is to examine and criticise, not any particular disputant, but the position and arguments common to a whole school or party, the writers who will yield us the best illustrations of these are writers who, in virtue of their position and

Chapter 3
Two represen-
tative apolo-
gists chosen as
examples.

the scope of their works, are widely representative rather than great or original. Accordingly, in the present case, we will go to two recent treatises by two Roman Catholic writers of unimpeachable orthodoxy, and we will do so for the following reasons. In the first place, the Roman Church is, of all religious bodies, regarded as the one that is most hostile to science, and inclined to allow its children to make the fewest concessions to it. The concessions of these writers, therefore, have special significance. In the second place, they both of them are men of high philosophic education, considerable scientific knowledge, and exceptional acuteness of mind. And in the third place, their works, from which I am about to quote, are not works devoted to expressing any special views of their own, but are careful and elaborate digests of the various arguments which are used, or are capable of being used, in defence of religious doctrine against the negations of contemporary science. The two works to which I am here referring are a treatise entitled, *God, being a contribution to the Philosophy of Theism*, by Father T. Driscoll, a distinguished American scholar; and a treatise on *Psychology*, by an English Jesuit, Father Maher, which forms a volume of the Stonyhurst Philosophical Series.

Let us see, then, how these two writers deal with the question of the origin of organic life. "The monists," says Father Driscoll, "contend that the universe ought to be explained by its own inherent

forces alone. Hence they propose the theory . . . of the production of life as resulting from the action of physical or chemical agencies. Others (the religious dualists) hold that in the animal or vegetable kingdoms life can come only from life. The real question at issue," he proceeds, "is the existence of a living Creator." Father Maher says precisely the same thing. The monists, he points out, admit that the substantial identity of life and matter, of physical motion and consciousness, is unimaginable; but yet they persist in asserting it—a fact which he illustrates by quotations from Tyndall, Huxley, and Mr. Herbert Spencer. And why, he asks, do they do this? The reason, he replies, is simple. It is that they will not entertain the only possible alternative—namely, that life has been introduced into matter by "the special act of an omnipotent living Being," or, in other words, by God.

Chapter 3
Biogenesis and
abiogenesis.

Now that the doctrine of a God of the kind which Father Maher has in view—namely, a conscious and ethical Being with a special regard for man—is not the only alternative which organic life suggests to us,—that it is not, indeed, suggested to us by such a phenomenon at all,—has been shown in the preceding chapter. We are about to see here that even were the case otherwise—were the origin of life admitted to be explicable only by ascribing it to the unique intervention of a living and conscious Being—this admission would do nothing to suggest the possession by man of a nature between which

and such a Being a religious relation would be possible. We shall see also how, throughout the entire discussion, our religious apologists are arguing on purely scientific principles, and are making their appeal frankly to scientific standards of truth.

The fact which here they all take as their starting-point is a fact which they derive from the modern science of biology, and which they are able to assert only because they accept that science as trustworthy, namely, the fact that all life, so far as observation and experiment can inform us, has its origin in a living germ or cell. They are never weary of citing the evidence of physiologists and embryologists, in support of this conclusion; and so great is the importance which they attach to the point here at issue, that even men as fair-minded as Father Maher, in their zeal for their own view, unintentionally misrepresent—we might almost say invert—what the leading men of science have really said on the subject. Thus Father Maher confidently quotes Tyndall and Huxley as affirming that living beings are produced only from living beings; and that the theory of spontaneous generation has not “a single shred of evidence” to support it. What they really say is something totally different. It is not that spontaneous generation has never taken place in the past, and that all life, as we know it, is not due to this process; but that the process has not been discovered taking place on the earth now, and that experiment thus far has been unable to reproduce it. That it has taken

place in the past is the very thing that they affirm ; and they hold that this view is supported by all the analogies of the universe. Here, however, we may waive this objection entirely. We may grant all that Father Maher and his friends ask, and allow that there demonstrably is, in all organic life, some principle which is absent from the world of inorganic matter.

The point to be insisted on is that, according to their fundamental admission, this principle first manifests itself in the living germ or cell. The mystery of organic life is to be sought and found there. Father Driscoll and Father Maher both proclaim this fact. Father Maher refers us to the life-germs floating in the atmosphere, which the minute researches of our most recent biologists have shown to be really the cause of certain ambiguous phenomena, once mistaken for examples of spontaneous generation. Father Driscoll, who deals with the question in greater detail, refers to the series of attempts made during the nineteenth century to produce or detect the production of living from lifeless matter. All these attempts, he says, ended in utter failure ; and he seeks to clench his case by citing the following instances. About the year 1870 two French chemists announced that they had made at last the long-looked-for discovery, and had found that living organisms could be developed from fermenting wine. But this contention, Father Driscoll proceeds triumphantly, was completely disposed of by Pasteur, "who showed

that fermentation is itself a function of life"; "that the phenomenon is produced by atmospheric yeast-germs," which are things having life already, and that these yeast-germs "come from without the grain."

Now this argument means, if it means anything, that the essential principle of life which distinguishes it from inorganic matter is no less present in a yeast-germ than in the body of a Christian martyr; and no one admits this more unequivocally than does Father Driscoll. The sole thing, then, that here the theologian desires to prove, or that the limits of the problem admit of his proving, is the truth of the proposition *omne vivum e cellula*—all life originates in the primary living cell. The one break in the uniformity of the observable universe is here. All the mystery attaching to life in its highest form is, so far as the present argument goes, merely the mystery of the primary cell magnified; and apart from the first origination of this elusive vital element, the evolution of organisms proceeds with the same uniformity which characterises the phenomena of the whole inorganic world. Thus, except for the assumption that germ-life in its origin is hyper-physical, fermentation is a process of the same order as is distillation or boiling; and even if we grant that, because it is caused by yeast-germs, all fermentation has a hyper-physical pedigree, we do no more to prove the possession of an immortal soul by man than we do to prove the possession of an immortal soul by beer.

That this is the case can be shown with the

utmost clearness by turning to certain admissions, or rather pronouncements, of Father Maher. He maintains, as we shall see presently, that the living principle of man in certain ways differs essentially from that of all other living things; but he insists that, regarded as organic life merely, this principle is in all the same. Now, in order to account for life merely as an organic phenomenon, all we need postulate, according to Father Maher, is the original introduction into protoplasm of a special living principle from without. "A divine creative act" is not, he expressly says, requisite to account for the existence of individual animal lives. Animal life once given, the separate lives emerge as "a result of substantial transformations produced by generation"; and animal life as such, even in its highest forms, "is essentially dependent"—these are his own words—"on the material organism, and is inseparable from it. It is incapable of life apart from the body, and it perishes with the destruction of the latter." Moreover, as we may note in passing, he adds in another place that animal life as such does not include free-will.

Chapter 3
Futility of the
argument from
biogenesis.

What religious doctrine, then, can be derived from a conclusion like this? The postulate of a special act to explain organic life gives us merely a perishing race of beings who are, as Father Maher admits, wholly "immersed in matter," whose acts and volitions are determined by causes outside themselves, just as are the movements of the molecules of the purely physical universe—who have no life

Chapter 3

The real doctrines as to man which the apologists have to establish.

but the present life, and no moral responsibility. Beings such as these, Father Maher himself declares, could have no religion. Religion would mean for them no more than it does for the yeast-germs, from whom they differ in degree only, not in kind.

The whole point, then, at issue between the dualist who asserts religion and the monist who denies it, so far as man is concerned, is this—not whether organic life contains in it any element which is not present in the substance of the inorganic universe; but whether human life contains in it certain elements which, in other organic life, so far as we can see, are absent; whether the life of man, unlike life generally, survives the life of the body; and whether, utterly unlike any other phenomenon known to us, the will of man is unfettered by a causation that is otherwise universal. The entire reality, the entire meaning of religion, stands or falls with the fortunes of these two doctrines.

Father Maher himself fully admits that this is so. Still taking him, therefore, as a type of the religious apologists who endeavour to meet science on what is strictly its own ground, we will consider in the next chapter how he deals with the doctrine of immortality, and see how far it can be placed on any scientific foundation.

CHAPTER IV

THE RELIGIOUS DOCTRINE THAT THE HUMAN ANIMAL IS IMMORTAL

FATHER MAHER'S endeavours to prove against science, on its own grounds, that man possesses a life independent of his body are singularly interesting and suggestive; because, though his arguments, in a few negligible details, are peculiar to thinkers brought up on the scholastic philosophy, they are not his own in any other respect. Taken as a whole, they are merely a brief epitome of the arguments used by religious apologists generally, whenever they set themselves to establish the same conclusion.

Two groups of
apologetic
arguments.

These arguments are separable into two groups, according to the class of facts on which they severally base themselves. One group bases itself on mental phenomena generally, considered in general contrast to the phenomena of unconscious matter. The other bases itself on certain mental phenomena in particular, which are alleged to be present in man, and absent in all other animals. We will examine the first group first; and the various

arguments comprised in it shall be stated, so far as possible, in Father Maher's own words.

He opens his case thus. We all admit, he says, that man possesses intellect. Now intellect, he goes on, is a faculty specifically distinct from that of sense. We can see at once that it is so by considering what it includes. It includes attention, reflection, judgment, self-consciousness, the formation of concepts, and the processes of reasoning. Let us take, for example, self-consciousness. This cannot, says Father Maher, be dependent essentially on a material agent; for the peculiar nature of the aptitude is fundamentally opposed to all the properties of matter; and precisely the same thing holds good of the intellect generally. This is not a truth perceived by theologians only. Atheistical men of science proclaim it with equal emphasis. Thus Professor Tyndall has admitted, in a justly celebrated sentence, that "the chasm between the two classes of facts (those of matter and those of consciousness) remains intellectually impassable." There is, in short, Father Maher continues, "an absolute contrariety" between mind and matter; and he ends by saying that "to endow an extended substance with an indivisible spiritual activity (such as consciousness) would be a metaphysical impossibility beyond the power of God." Therefore, says Father Maher, the intellect, or the rational soul of man, is evidently distinct from the body through which it operates, and which it employs; and being distinct from it, is essentially capable of surviving it.

The argument is a familiar one. It figures again and again in unnumbered books and sermons; but what is it really worth? Let us take it to pieces and see. The unimaginable nature of the connection between consciousness and organised matter is no doubt seen and assented to by Father Maher's opponents as clearly and fully as it is by Father Maher himself. But he, like everybody else, admits that this connection is a fact; and the alleged fact that the former must necessarily be separable from the latter is just as difficult to imagine, and just as contrary to analogy, as is the admitted fact that the two are connected now. Father Maher's appeal here is merely an appeal to the imagination. It amounts to an assumption that the unimaginable cannot exist; whereas the very phenomenon is unimaginable about which he is reasoning, and one alternative explanation of it is just as unimaginable as the other.

The futility, indeed, of this entire line of argument is admitted by no one more clearly, though quite unconsciously, than it is admitted by Father Maher himself. One of his statements is that the immortal soul of man is "an indivisible essence without mass or quantity," but that nevertheless "it puts forth its virtue throughout the entire organism." Now, it is true, says Father Maher, that this diffusion of the non-spatial through the spatial is contrary to all analogy, and cannot possibly be imagined. But what of that? he asks. And he answers in these words: "Imagination," he says, "is not the test of possibility. We

Chapter 4
Fallacies involved in the argument.

are unable to imagine how spatial pressure can excite non-spatial pain; but we have shown the absurd consequences which follow the denial of the universal conviction of mankind on this point." If, then, it is true that the unimaginable takes place in the case of pain, why need it be less true that it takes place in the case of mind, of consciousness, of the reasonable soul, of the intellect? The one, as Father Maher admits, is as strictly non-spatial as the other. The chasm between the two is, in thought, equally impassable. Why, then, is there a more absolute contrariety between organic matter and intellect than there is between organic matter and pain? If non-spatial pain cannot exist, as he admits it cannot, without the spatial pressure that excites it, how can it be self-evident that non-spatial intellect is essentially independent of the operations of the spatial brain?

Not only does common sense show that there is no answer to this question, but Father Maher, in other portions of his reasoning, shows us that there is none himself. We have seen already that he, like religious apologists generally, deny to other life the immortality which he claims for human. At the same time he admits, like everybody else, that the higher species of animals obviously possess consciousness; and yet, he says, their consciousness, and indeed the whole animal soul, is essentially dependent on the material organism, and perishes with the destruction of the latter.

What, then, follows from this? It is true, as we

shall see presently, that, according to Father Maher, the consciousness of man is higher than that of the brutes, but that of the brutes, at all events, is equally non-spatial. Between it and matter there is as much and as little apparent "contrariety" as there is between matter and the consciousness of the human being. In each case the chasm between matter and consciousness is for the imagination equally impassable. It is idle, therefore, to argue that man's life evidently contains a principle independent of the material organism, merely because the organism is spatial or extended, whilst the phenomena of consciousness are non-spatial or non-extended, and because between the extended and the non-extended there is an absolute contrariety; for there is the same contrariety between the consciousness and the material organism of an animal, and yet the two arise and the two perish together. This whole argument from the contrariety between conscious life and matter is therefore wholly valueless. It is a gratuitous insult to the understanding. It either shows that pigs have immortal souls, which Father Maher emphatically denies, or it does nothing to show that men have.

So much then for the first portion of Father Maher's case—for this belated and self-contradictory, but yet most popular fallacy, with which so many defenders of religion at the present day still persist in making the cause which they would defend ridiculous. From this portion let us now turn to the second, which, whether the contentions contained in it are actually true or false, is at all events inter-

Chapter 4

 Fallacies in the argument drawn from the difference between mind and matter.

nally consistent, and must be tested by its accordance with facts.

Here, again, Father Maher is merely collecting, formulating, and arranging in an orderly manner the contentions put forward in respect of the present question by the great majority of our modern religious apologists. He speaks for them in his own words; he uses his own illustrations; but his meaning and the course of his reasoning are theirs no less than his.

Father Maher's main thesis, stated broadly, is this. Though man's life and that of the animals have many points in common,—though the two may, indeed, be identical in respect of the merely sensuous faculties,—yet there is in the nature of man a certain peculiar element, the presence of which in him, and the absence of which in the animals, separates the two by a chasm not less impassable than that which yawns between organic phenomena and inorganic. And the reality of this element is asserted not as a mere speculative doctrine demanding an assent of faith, but as a fact demonstrable by the ordinary methods of observation. We are asked to accept the statement that man possesses certain faculties of which, in other living creatures, there is not even a trace, on grounds similar to those on which we all of us do accept the statement that men can boil tea-kettles, and other living creatures cannot. And this element or these faculties which are thus peculiar to man are the faculties which Father Maher comprises under the name of Intellect.

Now, the principal contents of the intellect, according to Father Maher, are these: Attention, judgment, reflection, self-consciousness, the formation of concepts, and the processes of reasoning. According to Father Maher, the animals possess none of these; for as each of these is an integral part of the intellect, it is of course obvious that if the animals possessed any one of them, the animals would possess, in some degree at all events, that unique and hyper-physical faculty which is possessed by man alone. Let us then take these faculties *seriatim*, and ask if there is any ground in the facts of observation and experience for maintaining that in all living creatures, with the sole exception of man, all trace of every one of these faculties is wanting. Let us begin with the faculties of attention, judgment, and reflection.

It is, of course, possible to conceive of judgment and reflection in a sense in which it would be absurd to attribute them to the animal mind, just as it is possible to conceive of them in a sense in which it is correct to attribute them to a full-grown philosopher, and absurd to attribute them to a savage, or a future philosopher in his perambulator. But does the elephant, when he feels a bridge, before he will trust his weight to it, not judge and reflect in an obvious and appreciable manner? Does not a dog judge and reflect, when he moves aside just in time to avoid a stone thrown at him, the speed of which he must have accurately gauged, discriminating between swift and slow? And yet again, do animals never show attention? Does a horse, a

dog, or a deer, hearing some sound, never start, then stand motionless, and then bound away? No signs of attention are more marked than these. Amongst all the higher animals no signs are more common. In the face of any body of men who had made animals their study—who had kept them for pleasure, as women keep pet dogs, or had used them for practical purposes, as a shepherd uses his collie—no theologian could get up on a platform, and deny to animals all trace of attention, judgment, and reflection, without exciting a storm of contemptuous dissent and ridicule.

Next let us take self-consciousness. Father Maher, as we have seen, admits that the higher animals are conscious. It appears, then, that the whole force of his present contention depends on some doctrine that the faculty of consciousness generally is divided by an impassable chasm from the specific consciousness of self. The latter, he says, is the recognition of self by self as an indivisible entity, contrasted with all other existences, in the manner in which a philosopher contrasts them. In this sense, no doubt, animals are not self-conscious. We may assume that a terrier is not a Hegel, a Sir William Hamilton, or a Kant. But no more is an Andaman Islander; no more is an English baby. Let us consider this point carefully. It is one of very great importance.

No criticism directed against the religious apologists is more just than the objection frequently urged by their opponents, that, in endeavouring to establish

an essential difference between the nature of man and that of all living animals, they not only concentrate their attention on the higher races exclusively—the races amongst which thought and philosophy have slowly and laboriously developed themselves; but that also, even among these races, they confine it to exceptional individuals—to the Shakespeares, the Goethes, the Bacons, the Spinozas, the Newtons—who are as much above the level of the races which stand first in the scale of intellect as these are above the level of the races which stand last; whereas, in comparing the animal faculties with the human, in order to make the comparison of any value, it is the lowest type of man that must be taken, and not the highest. This most just criticism, however, is not pushed far enough. For the purpose of this comparison, it is very far from sufficient that we go for our type of man to the lowest, instead of the highest races, and take from these races the ordinary instead of the exceptional individual. We must not take any adult man at all. As our type of the human being, we must begin with the new-born baby.

If we wished to assure ourselves whether a telegraph wire which goes from London to Dover was connected or no with a wire which goes from Dover to Paris, we should not examine the latter at Amiens, or even at Calais. We should go to the point at which it issued on English soil. Just as of the first wire we should take the end that was nearest to Paris, so of the second we should take the end that

was farthest from it. In the same way, when we are inquiring whether the animal nature has really an unbroken connection with human nature or no, just as we take, on the one side, the faculties of the higher animals, as marking the point at which the development of the animal faculties ends, so, on the other hand, must we take the new-born baby, as the point at which the development of the human faculties begins.

The question, then, is not whether there is not an obvious difference between the operations of the mind of a Descartes, speculating on the nature of the Ego, and any operation we can assign to the mind of a dog, an ape, or an elephant, but whether the highest mental operations of dog, ape, or elephant are inferior in a greater degree to those of a new-born baby—than those of the new-born baby, speechless, and so wanting in reason, that it does not even know that its own leg is its own, are inferior to the mental operations of the poet, the mathematician, and the philosopher.

Let us, then, bearing these facts in view, ask ourselves whether there is the smallest warrant for saying that the highest animal at the highest stage of its development recognises itself as an Ego in a manner demonstrably different from that in which the human being recognises itself at its lowest stage? If there is a superiority on either side, it is certainly on that of the dog. The baby, for a considerable time, does not know that it has a self at all. It has not so much as begun to detach itself,

in thought, from its environment; and even when its mental development has begun to be clearly perceptible—when it first cries for its pap-bottle, or for a piece of indiarubber to bite upon—who can say that its consciousness of its own self is clearer than that of a dog, fighting for a bone with another dog? No one can deny that the dog who so fights is selfish. Father Maher himself admits that the dog is conscious. Is it possible to conceive a more miserable piece of clap-trap than the doctrine that the baby is miraculously conscious of self, in a sense in which the dog, who fights for his bone, is not? If there is no break—and we all of us know there is none—between the consciousness of the full-grown man and the baby's, how can we pretend that, as an actual and demonstrable fact, an impassable gulf yawns between the baby's consciousness and the dog's? Not only is such a fact not demonstrable; so far as observation can guide us, it is not even remotely probable. It is nothing better than a wild and fantastic assumption, recklessly adopted to support a foregone conclusion.

We have not, however, come to the end of the theologian's case yet. We have not even come to what he considers the strongest part of it. We have attacked only his outworks. We have not approached his citadel. We have dealt with attention, judgment, reflection, and self-consciousness; but these are not the faculties of the intellect on which Father Maher and his brother apologists mainly rely, when they are seeking to show that

Animal self-consciousness and human exhibit no difference in kind.

intellect is the exclusive possession of man. The faculty of the intellect on which their argument mainly rests is the faculty of forming concepts. If nothing else is evident, this at least, they say, is so—that men can form concepts and other living creatures cannot. It is in the faculty of forming concepts—these are Father Maher's own words—that "the spiritual nature of man is best manifested." Let us see whether this final contention has any better foundation than its predecessors.

In the first place, then, let us ask what is meant by concepts. Father Maher explains to us what they are by certain familiar illustrations, which have the great merit of making his meaning clear. Concepts, or universal concepts—for he uses the expressions indifferently—are often identified with those conscious abstractions which have figured so largely in philosophical controversy, and have been held by some schools to have a real, and by some only a nominal existence. But the essential character of such concepts, and examples of the mind's power in forming them, are, he says, to be found in very much simpler cases. The essence of a concept is this: It is a general idea of a thing as distinct from any particular specimen of it. It is, for example, a general idea of milk as distinct from the milk in this or in that jug. It is the general idea of the dog as distinct from dogs individually. Now concepts of this kind—veritable universal concepts—are to be detected, says Father Maher, in the child the moment it learns to express itself.

We find them in such propositions—the philosophy of the cradle abounds in them—as “milk nice”; or in the infant naturalist’s classification of the first horse seen by it as “a big bow-wow.” No animal, says Father Maher, has the marvellous and unique power of forming concepts like those that are here implied. The animal is conscious of nothing but a multitude of individual things. It has no general ideas under which it can arrange and group them. But is this true? Does not observation, on the contrary, show us that is the exact reverse of the truth? Does not a cat realise, as a fact which is true generally, that milk is nice, just as clearly as a child does? It does not wait to taste the particular saucer of milk. It knows by the look and smell of it that the milk in this particular saucer is a specimen of a fluid whose niceness it has learnt already. Does not the dog recognise other dogs as creatures belonging to the same species as its own? Do not cows and horses, who have at first been frightened by trains, reach, when they have ceased to be frightened by them, to some such conclusion as “trains not dangerous”? It is impossible, from observed facts, to maintain seriously that they do not. The animal’s judgments may possibly be less clear than the child’s; but they are at all events more clear than the baby’s; and they certainly do not show signs of so great a distance from the child’s as the child’s show from those of the mature philosopher.

Chapter 4
Animals can
form rudiment-
ary concepts.

Thus the argument drawn from the faculty of

forming concepts is just as impotent to prove that there exists in man any principle of which even the rudiments are absent in the higher animals, as is the fact of consciousness being non-spatial, to prove that in man there exists a capacity for eternal life, which it does not prove to exist in all the higher animals likewise.

We have, then, considered carefully Father Maher's two main contentions, and have found that under examination they both break down completely—that which rests on the contrariety between the spatial and the non-spatial, and that which rests on the alleged demonstrability of a gulf yawning impassably between the animal mind and the human. We have considered them carefully, and we have done with them. But our task is not ended yet. For behind these first lines of defence, with their outworks and their impregnable citadel, there are others, and others of a somewhat different kind. The former are based on a consideration of life viewed from within. The latter are based on a consideration of it, viewed from without—viewed objectively, not subjectively. These contentions, which we have still to deal with, are four in number. They are as follows :—

Firstly, Whilst men are capable of disinterested and reasonable affection, we can see that the feelings of the animals are all of them purely sensuous.

Secondly, Unlike men animals make no progress. The geese of the days of Moses were as wise as the geese of to-day.

Thirdly, Though the lower kinds of mental activity—such, for example, as memory—are referable by physiological science to particular portions of the brain, and suffer or disappear when these portions are injured, the higher mental faculties cannot be so located. Though they too are associated with particular portions of the brain, in the sense that they normally employ these portions as their instrument, they are free within limits to alter this normal arrangement, and employ, if it suits their convenience, other portions instead. These higher faculties, therefore, are demonstrably separable from matter.

The higher human faculties alleged to be separable from the brain. These arguments criticised.

Fourthly and finally, Man's powers are admittedly superior to those of the animal's; but there is no corresponding difference between the animal brain and the human; therefore man's superior powers are demonstrably independent of the brain.

Let us take these arguments in order.

Firstly, Is it true that the feelings of the higher animals are all of them purely sensuous? Can the affection of a dog for his master be plausibly so described? How is it evident that the dog who watches by his dead master's body is animated by a feeling of a kind radically different from the feelings of a human mother who watches by her dead child? The doctrine that it is so is an assumption not only purely arbitrary, but also in direct contradiction to all the evidence we possess.

Secondly, as to the argument that whilst men

make progress animals do not—this statement, indeed, is true, if we apply it to certain races of men; but it is the very reverse of the truth if we apply it to mankind at large. Tribes of savages exist at the present day who are still in the condition of the men of the stone age. The stone age itself, extending like a level desert, reduces, in point of duration, the age of historical progress to less than a bustling yesterday in the life of a man of sixty. Again Father Maher forgets that the progress of man in the arts is admittedly due, in a very great degree, not to any superiority in the human mind at all, but to one that is purely physical—the adaptable human hand. If men, then, possessed of the advantage of the human hand have remained stationary for countless thousands of years, why need the fact that animals have remained stationary also prove that besides lacking the hand—the primary tool of progress, the primary physical basis of weaving, building, and writing—they must have been lacking in every faculty that can be called intellectual likewise? What would the men of Europe be at the present day if their pre-glacial ancestors, without being changed otherwise, had been suddenly deprived of their hands, and had peopled the world with men who, instead of hands, had hoofs? Let us only consider the question under this aspect, and, comparing the highest animals with the lowest races of men, we shall not take long to convince ourselves that the fact of human progress does nothing to prove that in man

there is any intellectual faculty which is not in some degree shared by the animals also.

Thirdly, as to the alleged fact that the higher mental faculties can employ, within limits, any portion of the brain indifferently—that instead of being inseparable from the brain, they are movable guests on its premises, lodgers who can, when the drawing-room chimney smokes, migrate at will to the first-floor back or the scullery—we may confidently say, since Father Maher appeals to physiologists, that his fact is one which no physiologist will admit. On this answer, however, to which we shall have occasion to refer hereafter, we need not insist here, for Father Maher himself supplies us with another which is simpler, and which, so far as the question before us now is concerned, is even more conclusive. He bases his alleged fact on certain experiments made by Goltz, which show that “if the operations of certain portions of the cerebrum are suspended, some new portion is capable of adopting the suspended functions.” This, he says, “is quite enough to show us how little foundation there is for materialistic dogmatism.” Now, for argument’s sake, let us grant that facts are as he states them. This does nothing to fortify the position which Father Maher is seeking to maintain. For his special thesis is that there is in man a certain hyper-physical principle which does not exist in the animals, and this is the position which he invokes the experiments of Goltz to confirm. The principal experiments, however, on

Absurd contention of apologists with regard to the human brain.

which Goltz based his assertions were, as Father Maher himself happens to mention, unfortunately made not on men but on dogs.

And now let us take the fourth and the last of these arguments, namely, that in which Father Maher asserts the human brain to be so like the brain of the higher animals, that man's superiority cannot be due to this physical organ, but must be due to the presence in it of some alien and hyper-physical visitor. Here, again, we might point out to Father Maher that the distinguished physiologist Flechsig, whom, in this connection, he often cites as his authority, declares that in the thought-centres of the brain, which are distinguished by their structure from the sense-centres, man does possess precisely that degree of peculiarity which analogy might lead us to expect as an explanation of his mental pre-eminence. But here, again, it is enough to refer Father Maher to himself. For whilst he denies any such peculiarity to man when his argument prompts him to do so, in another part of his work he asserts it with the utmost emphasis. Thus whilst he says in one place (*Physiology*, p. 502) that "science has as yet completely failed to assign any distinct property of man's brain by which his intellectual superiority is reached," he says in another place (p. 581) that "the differences which separate man from the nearest allied animals are so pronounced that analogical inferences as to the character of the mental or emotional states of the latter are almost, if not wholly, worthless."

But the value of all these arguments drawn from an alleged demonstrability of an absolute difference in kind between the animal mind and the human, can be shown more succinctly and more comprehensively still by yet another reference to Father Maher's own words. The foregoing arguments, all of them, are based on and imply the supposition that by observation, inference, or otherwise, we can learn with approximate accuracy what the mental life of the animals is—that we can know it, for example, to be wanting in universal concepts, and to comprise no feelings except such as are purely sensuous. This is what Father Maher insists on when he is engaged on his main task of showing that the animal's life is essentially distinct from man's. But when, in a supplement to his book, he comes to deal with animal psychology, seemingly forgetful of what he had said before, and seeking to reach his conclusion by another and an additional route, he turns round on himself, and bluntly and contemptuously denies the postulate on which the whole of his initial contention rested. Having begun by asserting that observation enables us to demonstrate certain fundamental differences between the animal mind and the human, he now tells us that we are not, in any practical sense, able to know anything about the animal mind at all. "Careful reflection," he says, "must convince us that, no matter what pains and industry be devoted to the observation of the animals, our assurance with regard to their sub-

jective states can never be more than a remote conjectural opinion."

If he attaches any serious meaning to this statement—and the deliberate wording of it would lead us to suppose that he does so—his entire argument in favour of man's immortality is, from the beginning to the end of it, dismissed by himself as nonsense. How is it possible to base any kind of demonstration that the human intellect in its essence differs from that of the animals, on the fact that animals cannot form universal concepts, that they are incapable of attention, that they are incapable of judgment and reflection, and that they are incapable of any emotions which are not purely sensuous, if all our knowledge of their character is merely remote conjecture?

Here, then, we have before us all the principal devices by which Father Maher, meeting science on its own ground, endeavours to vindicate for man a life independent of his body, and to establish the dualism implied in the doctrine of an immortal soul. I have examined them as stated by one particular writer; but I have done this—let me once more say—not because they are advanced by *him*, but because they are arguments common to all religious apologists of to-day, who endeavour, on its own grounds, to meet science at all. Father Maher has done nothing but collect them with great learning and diligence, and express and arrange them with great skill and lucidity. They form, in fact, as summarised by him, an epitome of the

whole defence which religion, as opposed to science, offers to-day of the dualism of soul and body ; and the defence as a whole, and in every one of its details, is, as we have just seen, futile.

We have, however, considered but one part of the case yet. We have listened to religious dualism attacking scientific monism. Let us now listen to scientific monism as stating its own case ; it attacks religious dualism. The destruction of the doctrine of the dualism of soul and body, so far as the methods of ordinary knowledge can deal with it, will be found to be even more complete than we have seen it to be already.

And first, in order that we may avoid any possible uncertainty as to what the general strength of the scientific position is, let me once more illustrate the manner in which science is now regarded by even the most conservative of those who oppose its monistic conclusions. Our religious apologists—lay and clerical—to-day have ceased to deny the validity of scientific methods with regard to any subject to which they can be definitely applied, and scientific conclusions which the theologian would have denounced yesterday, he now accepts with every expression of respect, and endeavours to harmonise with his own religious system.

Here, for example, is a passage from the German apologist, Dr. Hettinger, a divine of the Roman Church, who is a very Don Quixote of orthodoxy, and is, indeed, thought too conservative

Chapter 4

The validity
of scientific dis-
covery admit-
ted by theo-
logians.

by some of his co-religionists. Speaking of science Dr. Hettinger expresses himself thus: "A mere speck on the earth's surface, man now weighs this terrestrial sphere, and measures its height, its breadth, and depth. Astronomy subjects to its formulas the mechanism of the heavens. Geology penetrates into the mystery of the earth's origin. Chemistry shows the elements by whose combination bodies either exist or disappear; and physiology reveals the formative processes of organisms, and the continuity of their fundamental type from the lowest up to the highest—that of the human body."

To Dr. Hettinger's words let us add those of Father Driscoll. The witness borne by both is identical. "Science," says Father Driscoll, "affords us a valid and sufficient means of discovering the laws and relations of the phenomena of the whole physical universe." He runs through the several sciences, describing the scope of each, and indicating the conclusions which have thus far been reached by them. Chemistry, he says, treats of the composition of substances and the changes they undergo. It tells us that they are made up of small particles called atoms, and points to a resolution of the atoms into some yet simpler basis. He then proceeds to a discussion of physics and thermodynamics, and states as an empirical truth, no less boldly than Professor Haeckel himself, the doctrine of the conservation of matter, and the doctrine of the conservation of energy. He speaks of astronomy in an exactly similar spirit as revealing

to us the gradual evolution of the solar and other systems, in the course of ages, from some primordial nebula. Passing from astronomy to geology, he tells us that science has deciphered in the rocks the history of the earth's formation, and has shown the slow stages by which it has reached its present condition; whilst finally, biology, with geology largely aiding it, takes up the tale at the point where life first makes its appearance, and has traced its development from its simplest cellular origin up to the human being, regarded as a physical organism.

Chapter 4
 Organic evolution admitted to be a fact by theologians.

No admissions on the part of contemporary theology could be stronger than these, of its full recognition of the claim put forward by science to interpret the universe so far as the universe is accessible to it, or of the substantial truth of the conclusions which thus far it has reached. And this observation applies more especially to the general doctrine of evolution, and the manner in which, to-day, educated religious apologists of all schools accept it. That evolution explains a vast number of phenomena which were formerly regarded as due to separate acts of God, and were cited as classical evidences of his constant direct agency—that it explains, in particular, the variety of living species as the result of a continuous and single process rather than as the result of a number of isolated and arbitrary interferences—this all educated apologists are in these days eager to declare that they accept as fully and with as little fear as their opponents. Neverthe-

Chapter 4
 Invalid objections to the doctrine of organic evolution.

less, whilst admitting this truth in a certain general way, they are still nervously on the watch to discover limitations and flaws in it, and to show that it is at best but a half truth after all.

Willing to wound, and yet afraid to strike,
 They hint a fault and hesitate dislike.

There are, for example, few passages in his *Psychology* which Father Maher appears to have written with greater satisfaction than those in which he cites naturalists who have followed in Darwin's footsteps as witnesses to the fact that the principles actually formulated by Darwin are insufficient, as they stand, to explain all the phenomena of variation.

Now that such is the case was admitted by Darwin himself. But the general theory of evolution which connects man with the animals, supported as it is by such a vast and increasing consensus of evidence, is not weakened by the fact that, within the limits of half a century, it has not been possible for inquirers to make the evidence complete. The wonder would be if it had been. The evolution of species doubtless presents problems which have as yet received no specific solution, and examples of such problems have been discovered by recent naturalists which were not realised by Darwin himself or his contemporaries. What our religious apologists, however, fail to understand is this,—that whilst, on the one hand, lacunæ have been discovered in the class of evidence with which, in a

special manner, the name of Darwin is associated, other evidences of the doctrine for which Darwin contended—namely, the essential unity of man with the other animals—have accumulated in overwhelming strength, and have done more to make the doctrine a demonstrable, indeed a visible, fact than any of the detected lacunæ have done, or can do, to cast doubt on it. The evidences to which I am here referring are those supplied us by embryology—a science to which Darwin always looked with confidence as the most important of the witnesses by whose evidence his case would be established.

Many of the facts with which embryology deals have, in a certain sense, been familiar always to everybody. Such, for example, is the development of a cock or hen from a hen's egg. Here, as Mr. Francis Darwin, in his life of his father, observes, we have an example of evolution in the strictest sense of the word, which, if only the egg were transparent, we could see whenever we chose, actually taking place before our eyes. And Father Maher and Father Driscoll both, as we have already noted, admit that the structure and nature of even the highest species of animals exist potentially in the yeast-germs, or the germs floating in the air. But what neither Father Maher nor Father Driscoll appears to recognise, and what has indeed been demonstrated only within the last quarter of the nineteenth century, is firstly, the fact that the evolution of the individual man is

identical with the individual evolution of the animals most nearly allied to him; and secondly, the fact, more remarkable still, that the organic evolution of such individuals—human and animal equally—is in each case an epitome of the long evolution of the species. These two facts throw a totally new light on phenomena which have been familiar to man ever since man existed. They make him see them with eyes from which scales have fallen. We will deal with these two facts separately.

It has always been known, let me repeat, that chickens were developed from eggs; but it was not known till some seventy years ago that man is developed in essentially the same way—all the higher animals being developed from eggs likewise, and this evolution proceeding by stages of the same kind. As time went on, the truth of this discovery was confirmed and illustrated with increasing minuteness and fulness. Some twenty years later, it was discovered that the egg, from which men, like their animal kindred, spring, is at first a single cell, from which, by repeated segmentation, a group of cells arises, which assumes the shape of a mulberry; and from this group are differentiated all the various organs, in every case by precisely similar stages. Sixteen years later, in 1866, important discoveries were made as to the nature of the egg's counterpart—the seed which is contributed by the male parent, as the egg is contributed by the female. It was shown that the active principle in the seminal fluid of the male

consists of minute ciliated cells, known as spermatozoa, of which each drop of the fluid contains an enormous number. But it was not till the year 1875 that the precise relation between the male spermatozoon and the female ovum was discovered. It was then discovered that the egg-cell, by itself barren, becomes the source of life only when in coalescence with some one of the sperm-cells. The conditions of conception are these. There is injected by the male into the female an enormous number of sperm-cells or spermatozoa, which so far show signs of life that they move with extreme activity. Round the female ovum multitudes of these male cells press, "like suitors," as Haeckel says, "pressing round one woman;" but into the nucleus of the ovum only one is admitted. Having admitted it, the ovum embraces it and folds itself round it. The other competitors are shut out from all hope of entry, and then within the closed sanctuary the formation of a new life begins.

Such is the first act of the great conceptual drama. It is common to man and the animals most nearly allied to him; and as the drama proceeds, the identity of its incidents, in all these cases, continues. Moreover, in all these cases, not only do these same two protagonists, the male cell and the female cell, behave similarly both before and after coalescence; but the mode of origin in the two parents is the same. They have both their origin in the layer of cells, "which clothes," as Haeckel says, "the cavity of the parent bodies."

The divergence between the embryo of man and that of any one of the animals now in question, and the divergence between the embryo of any one of these animals and those of the others, does not begin till late on in their history. Up to this stage, says Haeckel, "the embryo of the ape, the dog, the rabbit, and the sheep, although recognisable as higher vertebrates, cannot be distinguished from one another. . . . Even after the five vesicles of the embryonic brain appear in the head, and the rudiments of eyes at the sides, and after the legs spread out at the base in the form of two somewhat flat buds, the human foetus is still so like that of other vertebrates, that it is indistinguishable from them. . . . The nearer two animals are in their bodily structure, and therefore in the scheme of nature, so much longer do we find their embryos to retain this resemblance. . . . Hence it is that the embryos of the man and the anthropoid ape retain their resemblance much later—at an advanced stage of development—when their distinction from the embryos of other mammals can be seen at a glance." Haeckel may indeed well say that it is impossible to elucidate such facts as these, except by the assumption that these animals have a common parentage; and we may add that these facts alone would be more than sufficient to counterbalance any lacunæ in the evidence of other kinds, which is at present in our hands, for the doctrine of the evolution of species.

But embryological discoveries even more sig-

nificant than these yet remain to be mentioned. In technical language they are summed up thus: Ontogenesis is the brief and rapid recapitulation of phylogenesis. Let me put this in simple English. By ontogenesis is meant the evolution from the fertilised ovum of the individuals of each species; by phylogenesis is meant the evolution of the species itself; and the latest discovery of science with regard to the two is this. Alike in the case of man, and of the animal species generally, that gradual and slow development from lower forms to higher, the exposition, or at all events the partial exposition, of which is principally associated with the labours and the genius of Darwin, may more or less completely, according to accidental circumstances, be seen taking place with the rapidity of a brief epitome in the embryo of each individual living creature from the moment of its conception till the final moment of its birth. Of this truth it will be enough to give two illustrations.

One is the fact that in the embryo of man and the allied vertebrates, the first emergence of the members of the vertebrate body is followed by the emergence of a something that subsequently disappears; and this something is the gill-clefts of our far-off aquatic ancestors. The army of theologians, who thought that they could kill with ridicule the doctrine that men were of the same race as the monkeys, thought it still more ridiculous to suppose that he could claim any kindred with the fishes. And now this supposition, once treated with such

Chapter 4 —
 The metamorphosis of the tadpole into the frog.

injudicious scorn, is shown to be attested afresh by the evidence of a living document every time a child is conceived and grows to maturity within the womb.

And this fact leads us on to another familiar to every one of us, which it puts before us in a light that is wholly new. We all of us know that the tadpole—an animal that swims in the water—develops into a frog—an animal that hops on land. Few, however, even yet realise that, in this common daily event, we have a miniature reproduction of the great process of evolution, in virtue of which we are men, and not frog-like things, ourselves. We have here, taking place outside the womb, an example of that same recapitulation of the past, which, in the case of the human being, takes place inside it. We have here the ancient development of the land animals from the fishes, re-enacted for us in the open light of day. In fact, just as Catholics hold that every celebration of the Mass repeats the ineffable miracle of the incarnation and oblation of Christ, so does the conception and completion of each individual animal re-enact in miniature the æonian history of its species.

And there is more to add. The facts just described are being now gradually adumbrated by other supervening facts—the mental counterpart of the physical facts. It is now beginning to be perceived that this recapitulation of the history of its species by the individual is not confined to the mere phenomena of the body—that it does not

come to an end when the bodily structure is complete, but is renewed in the post-natal development of consciousness and the faculties of the mind. As the embryo of the baby recapitulates the evolution of man as an organism, so does the progress of the baby from an unthinking to a thinking being, recapitulate the evolution of the specifically human intellect; and each mother who has watched with pride, as something peculiar and original, the growth of her child's mind, from the days of the cradle to the days of the first lesson-book, has really been watching, compressed into a few brief years, the stupendous process which began in the darkest abyss of time, and connects our thoughts, like our bodies, with the primary living substance—whether this be wholly identical with what we call matter or no.

Chapter 4

 The human and animal nature obviously one in kind.

Out of the deep, my child, out of the deep—
 Down yon dark wave thou comest—

this is the cradle-song of science—the cradle-song of the latest revelation.

What are the existing lacunæ in that mass of circumstantial evidence which has thus far been collected and formulated by Darwin and other naturalists, compared to the overwhelming unanimity with which all this cloud of witnesses declare that all life is, in kind and origin, the same? If we compare the evidences in favour of the monistic doctrine generally, with the objections urged by the religious dualists against it, the great difference between the

two is this: that whilst the objections of the latter are isolated, disconnected, casual, the existing evidences of the former cohere and dovetail into one another, like hewn and numbered stones designed for some vast edifice; and whilst the missing evidences of the monist are one by one being found, the objections of the dualist are in daily process of being discredited. In every province of knowledge which in any way bears on religion, the history of Galileo and the heliocentric astronomy has repeated itself. The evidences on behalf of the scientific doctrine have been multiplied. The objections urged against it have one by one been annihilated—and annihilated with such completeness, that the objectors of each generation have successively looked back with shame at the weapons, once thought so irresistible, and used with so much arrogance, by the objectors of the generations preceding. They have proclaimed scientific conclusions, one after another, to be false, because, as to this or that detail, positive proof was wanting; and then, in the midst of their jubilation, the missing proof has been found.

Of this let me give the reader a most instructive example. In the year 1875, a religious apologist, Mr. Southall, endeavoured to refute in a work called *The Recent Origin of the World*, the doctrine that human civilisation, instead of being a direct gift from God, given to man at his creation six thousand years ago, is due to an evolutionary process which has extended itself over unimaginable

ages; and the main argument of his work, which was one of considerable learning, rested on the fact that in Egypt—the country which modern science declares to be the home of the most ancient of all civilisations—all trace of the age of stone implements was wanting. “The Egyptians,” he said triumphantly, “had no stone age; they were born civilised.” And at the time when Mr. Southall wrote, his contention was true in this sense, that in Egypt no stone implements had up to that time been discovered. There was here a real gap in the evidence—a gap of the first magnitude. But a few years went by; and then—what happened then? The precise stone implements which he said never existed, were found in the very place in which he declared them to be absent.

To this example I will add another, and a more recent one. When the bones, found in Java, of the so-called missing link were submitted at Leyden to a congress of distinguished savants, Professor Virchow, who is an upholder of the isolated position of man, endeavoured to demonstrate that the thigh-bone of the creature was simply a man’s bone, and, as such, had no special significance. He founded his position on the fact that this bone had certain growths on it, obviously caused by various injuries which had been healed, but which, he said, could not have been healed without careful medical treatment. The objection thus stated seemed cogent enough, till Professor Marsh exhibited a number of other thigh-bones,

having on them growths of a precisely similar kind, and these were admittedly thigh-bones of mere wild monkeys.

What defences of any position could collapse more ignominiously than these? And these cases, as they are examples of the argument from gaps generally, which still finds so much favour with a large school of apologists, should be a warning to them all against their indiscretion in using them.

And now let us go back to Father Maher; and before quitting the subject which in this chapter has been engaging us—namely, the question of whether observation can detect in man any principle of life which is absent from the other animals—let us put his contention to one test more, and to a test which he has himself invited. If his contention be true that the human organism contains up to the time of its dissolution some element which is essentially separable from it, and can consequently outlast and outlive it, there must, it is perfectly evident, be some particular moment at which this imperishable soul has been introduced into its temporary and perishable envelope. Father Maher admits this. He also admits, as we have seen, that the history of this perishable envelope—the manner in which it begins and grows—is a history for which we must go to embryological and evolutionary science; and he accepts the events of this history, as science has now given them to us. Here, then, we have two facts, both of which he asserts, and which must, on his own showing, be accommodated the one to

the other—the immortal soul which must be introduced into the bodily organism somehow; and the manner in which the organism arises, and the stages by which it grows. Accordingly, we are compelled to ask at what precise stage does the introduction of the immortal soul take place?

Chapter 4
 The introduction of the immortal soul into the body.

This problem Father Maher endeavours to solve as follows: The life of all organisms, animal and human alike, has, he says, two aspects—the objective aspect and the subjective aspect. Considered under the former, he calls it the “vegetative principle”; considered under the latter, he calls it the “sentient principle.” It is in itself, however, one and the same thing. This sentient principle, he proceeds, though it is, so far as it goes, precisely the same in the animal and the human being, is in the case of the latter, and is not in the case of the former, inseparably amalgamated with a principle of another kind—a principle of reason or intellect. Thus, whilst the life of the animals is only “sentient,” that of man is “rational-sentient”—such is Father Maher’s own phrase. Thus again, whilst, in the case of the animals, the sentient or the vegetative principle depends on and is determined by matter, and is in consequence mortal, in man the presence of the transcendental element of intellect, united as it is to the vegetative principle and the sentient, somehow assimilates these to its own superior nature, and saves them from that dissolution which would naturally be their fate otherwise.

Why this vegetative and sentient principle, in

which Father Maher includes consciousness, should be obviously dependent on matter in the animals, and independent of it in man, we need not pause to inquire. We have dwelt on this aspect of Father Maher's argument already. We have here to direct our attention to another and quite different feature of it; but even here we shall have to recur to certain of our previous observations.

In the case of the animals we have seen already that the vegetative or sentient life, according to Father Maher, does not require for its reproduction any fresh "act of the Creator." Once having been implanted in any animal's first ancestor it is handed on and renewed by an unbroken process, from each pair of animal parents to all their animal offspring. But with man the case is different. Each human being from the beginning of its human life is supplied by the Creator with a separate human soul; and the physiological moment in which Spirit is thus introduced into matter—what moment is that? Here we come to the question, Father Maher's answer to which is the point on which I desire to fix the reader's attention.

The physiological moment, he says—and here we shall all agree with him—is the first moment at which actual conception begins. But what moment is that? It is obviously the moment—as Father Maher would himself admit—when the male spermatozoon and the female ovum coalesce. What follows, however, from Father Maher's teaching is singular. Since the entire animal life, vegetative

and sentient, is one; and since the entire human life, vegetative and rational-sentient, is one; and since the animal life is derived entirely from the parents, and the indivisible human life is not—it follows that whilst the animal ovum and the animal spermatozoon contain in themselves necessarily the principle of life from the first, the human ovum and the human spermatozoon are, before their coalescence, so much below the animal that they do not contain in themselves any principle of life at all. Animal life arises from organic matter that is living. Human life arises from organic matter that is dead.

Such are the absurdities in which this doctrine of an essential difference between the life of man and the life of the other animals lands those who would attempt, by demonstration, to accommodate it to the principles of science. On the basis of positive science the reconciliation of the two is impossible. If we look back over all that Father Maher has urged—and he is merely the lucid spokesman of all kindred apologists—we shall find that one conclusion, and one conclusion only, leaps into light from his aggregate of facts and arguments; and this is the very conclusion against which his arguments are directed. It is this—that whether or no there is present in organic matter any principle which in other matter is absent, throughout all organic matter this living principle is the same; that the life of the individual man, like the life of the individual animal, does not require any fresh “creative act”; that it is, in Father Maher’s own phrase, nothing more

than a result of a "substantial transformation produced by the act of generation"; that it is "essentially dependent on the material organism and inseparable from it; that it is incapable of life apart from the body, and perishes with the destruction of the latter"; that, whilst life endures, the individual lives die—die as the rose dies, never to bloom again; and that the mystery of the man's life and the mystery of the pig's are one.

That we need not accept this doctrine as a doctrine which is true actually is precisely what I hope, in the present work, to show. I am contending here—and here I am contending only—that it is impossible to show it not to be true by any scientific argument. Let me borrow the words of a writer, whose religion is as ardent as Father Maher's, and whose knowledge of science is closer and more extensive. "The philosopher," says Professor Münsterberg, "who bases his hope of immortality on a theory of brain-functions," and who "enjoys the facts . . . which at present . . . cannot be physiologically explained," is like an astronomer searching the universe for a region "where there is no space," and where "there is room for God and immortal souls."¹ Professor Münsterberg, as an apologist, seeks for a refuge in metaphysics. We shall have occasion to examine this refuge by and by; but whatever may be our judgment with regard to this, in the statement that

¹ *Psychology and Life*, by Hugo Münsterberg, Professor of Psychology in Harvard University, p. 91.

has been just quoted Professor Münsterberg is profoundly right. To any doctrine of individual immortality science opposes an unbroken and impregnable barrier; and those who, like Father Maher, endeavour to effect a breach in it do nothing but injure their heads by beating them against this wall of brass.

Of such thinkers as Father Maher, personally, I would speak with sincere respect. It is impossible to read his work, or Father Driscoll's, without being struck by their candour, their honesty of purpose, and the engaging temperateness of their style. The conclusions which they aim at establishing are the precise conclusions which I desire myself to exhibit as worthy of our reasonable acceptance. What I attack solely, is not their aim, but their methods; and using these methods, they fail to attain their ends, not because they are wanting in honesty, not because they are wanting in talent, but because they have attempted a task which is in the nature of things impossible.

Having now examined their defence of the doctrine of an immortal soul, we will examine in the next chapters the doctrine that man's will is free, and see how the religious apologist fares when he deals with this.

CHAPTER V

FIVE DIFFERENT ASPECTS OF THE FREE-WILL PROBLEM

Freedom of will involved in all religious ideas of morality.

A CHILD can understand that unless the will is free—unless out of different actions which are all of them physically possible to us we can choose to perform any one and refuse to perform the others—we cannot be responsible to God for what we do or abstain from doing; and that there can, between God and man, be no moral relation. Our criminal law, which declines to punish an offence if the offender is shown to be a lunatic, and wanting in that mastery over self which is commonly imputed to men in a normal state, expresses in a secular form this truth, or rather this truism, of religion. But to many people it is not perhaps equally evident—or it is not evident for equally precise reasons—why the doctrine or supposition that we do possess such freedom need present to the intellect any difficulty at all. It is, indeed, a supposition which is naturally made by all of us—the educated and the uneducated alike. We deliberately doubt or deny it only after careful reflection. Accordingly, before we consider whether, or in what way, the apologists

of religion can show that free-will is a fact, it will be well to point out to the reader the nature of the various reasons which we have for regarding it as a fiction, an illusion, an impossibility. We will start with a brief review of them, in the order in which, historically, they revealed themselves.

Early doubts as to the freedom of the human will.

Natural to all of us though the belief in free-will is, reflection had begun at a very early date to engender the conviction that many actions, at all events, which appear to be free to the eye of ordinary observation, really depend on other and larger causes than the conscious choice or volition of the human beings who perform them. Thus, to the Greeks this negation of free-will presented itself in the form of a doctrine of Fate or Necessity—Fate being conceived of as some ultra-divine power, which influenced the human will by an arbitrary and external compulsion. This conception of Fate is no longer entertained by anybody; but the doctrine of determinism was re-stated in a form very closely resembling it, by a school of Christian theology, not even yet extinct, which teaches that man's salvation is not in his own hands, but that even before he is born he is predestined to be saved or lost by the almighty power and deliberate purpose of God. It was, indeed, owing to the discussions to which Christian theology gave rise that the problem in time ceased to be theological, and assumed a form in which it confronts us now.

The thinker who was mainly instrumental in

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St. Augustine's
theological
speculations on
the freedom of
the will.

initiating this change was St. Augustine, and he was forced into initiating it, as Schopenhauer points out, by the peculiar character assumed by the theological speculation of his time. He was, as the champion of orthodoxy, confronted by two sets of heretics—the Pelagians on the one hand, and on the other the Manicheans; the former of whom declared that the sin of Adam had nothing whatever to do with the moral defects of his descendants, but that every man at his birth, like Adam before the Fall, was capable of leading a perfect life if he would; while the latter declared that evil and sin were inevitable, but were nevertheless independent of the human will altogether, being due to the association of the soul with the base principle of matter. St. Augustine, accordingly, had two tasks imposed on him. One was to defend the doctrine of original sin, which declares that man's will, being crippled by the sin of Adam, is incapable of willing aright, and is, therefore, not free to do so. The other was to defend the doctrine that sin is actually sin, that it originates in the individual himself, who deserves God's wrath for committing it, and is not a mere something accidentally imposed on him from without, like the mud adhering for a time to a jewel which has been dropped into a ditch. St. Augustine had, in other words, to defend two contrary propositions. He had to refute the Pelagians by maintaining that man's will is fettered, and, owing to Adam's fall, is naturally predetermined towards evil. He had to refute the Manicheans by maintaining that man's

will is free, and that evil originates in his will, and not in his inevitable circumstances.

Thus far St. Augustine's argument was purely sectarian in its character; but out of the reflections which the exigencies of orthodoxy had forced on him, others arose which, although they were theological also, transcended completely the minutiae of sectarian dogma, and concerned themselves with questions inseparable from all forms of theism whatsoever. The nature of these reflections is expressed in the following passage: "Since," he says, "we all of us believe that God is the cause and creator of every living thing, but that nevertheless he is not the author of sin, it is hard to explain reasonably how it can come about that sins being committed by souls, and souls being created by God, these sins are not solely attributable to God, who must be their first originator." Here, not only are we taken altogether away from the difficulties peculiar to some one form of religion, the data of theology being reduced to their simplest and most inevitable elements; but also—what is still more important—the difficulties which these data give rise to are submitted to the analysis of purely secular reason. This method of treating the question was pursued by subsequent thinkers; and, with the difficulties indicated by St. Augustine in the passage just quoted, others were shown to be associated, of a character no less formidable. To the question of how God, who is admitted to be the author of everything, can escape the charge of being

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The psychology of will developed from the arguments of theology.

himself the author of evil, the guilt of it being transferred from man's will to that of his Maker, were added the further questions of how, since God's will is omnipotent, the puny will of man can act in direct opposition to it, as it must do if God hates sin, and man is the sole cause of it; and of how, since God has complete foreknowledge of everything, and sees man's future acts as clearly as if they were already committed, man is able to act in any other way than one—namely, the way which, as if on a chart, is delineated in the divine foreknowledge.

But whilst all this was taking place—whilst one thinker after another was submitting free-will to an analysis which, though purely intellectual in its methods, dealt with the problem in a form with which religion alone could invest it—others were beginning to approach it from a different side altogether, and to study the will of man, not as related to God's, but simply as related to the nature and the circumstances of man himself. From a problem of theology they converted it into one of psychology—a problem depending on facts of purely human experience. What, they asked, when the human being wills, is the nature of the act, and under what circumstances does it arise? And the answer which they gave the question, put briefly, was as follows. The act of will, as known to us by our own experience, is an act which invariably is determined by the strongest motive; and motive, again, is determined by two things—the talents and

temperament with which an individual is endowed at his birth, and the circumstances by which, from his birth onward, he is surrounded. Now it is perfectly obvious that he has, when his life begins, no voice whatever in the settlement of either of these—of his circumstances on the one hand, or of his talents and temperament on the other. How, then, is it possible that an element of free choice, which was, when his life began, obviously not possessed by him, can be smuggled into his nature at any subsequent period?

Such, in its outlines, is the difficulty of the doctrine of free-will as, apart from any doctrine of God, it exhibits itself to pure psychology—that is to say, to a science which interprets mind exclusively by a study of the mind's own phenomena. The parable of the ass placed between two bundles of hay, and unable to eat either because both were equally tempting, which we owe to Buridan, a philosopher of the fourteenth century, shows with what complete success, even in days when the Church was dominant, a separation of this problem from its religious bearings had been accomplished; and how clearly, when separated thus, secular thought had conceived it. Later thinkers, indeed, such as Hobbes, Spinoza, Hume, and Priestley, amplified the arguments of their predecessors in the Middle Ages. But their reasoning proceeded on precisely similar lines, and the psychologists of to-day, who deny that free-will is possible, in so far as they are merely psychologists, and not some-

thing else besides, deny it on grounds identical with those that have just been indicated.

But we have not the problem before us in its latest form yet. It was destined to undergo another and again yet another metamorphosis: and in qualifying my observation with regard to the psychologists of to-day, by referring to them only in so far as they are mere psychologists, I did so for the following reasons. During the course of the nineteenth century a series of discoveries were made, which gave for the first time any definite meaning to a fact which, vaguely conceived and submitted to no analysis, has, from the very beginning of things, been necessarily familiar to everybody. This fact is the union of life and mind with matter; or, as it is otherwise called, the union of soul and body. Till comparatively recent times thinkers of all schools—even rationalists who rejected the immortality of the soul as a fable—conceived of the soul as an independent, though possibly a dissoluble essence, which made its home in the physical organism somehow. How vague this conception was, how lacking in all precision, is illustrated by the old idea that the heart was the seat of the affections—of love, of hate, and of the highest emotions of religion: an idea which still survives in the ordinary thought of all of us, but which, as a representation of fact, every child now knows to be ridiculous. This conception the science of the nineteenth century has revolutionised. It has turned supposition and conjecture into verified and detailed

knowledge. Following the psychologists in their analysis of the mind as a subjective phenomenon, and considering the processes separately into which this analysis resolves it, science has so far connected each with some physical process, its counterpart, as to show that no mental change, of whatever degree or kind, is separable from an equivalent change amongst the molecules of the brain or body. In especial the brain, as the organ in which conscious life is centralised, is exhibited as bearing to thought, desire, and will, a relation as close, and much of the same kind, as that which is borne by one side of a piece of tapestry to the other. Since, then, our mental states are inseparable from their material equivalents; and since their material equivalents are subjected to the same laws—those of matter and energy—which prevail throughout the whole material universe, the problem of free-will presents itself now as the question of how the mind can escape from the bondage of the laws and causes which so absolutely determine every movement of the matter, its inseparable companion.

Nor, in its relation to the problem, has science stopped short here. It had hardly succeeded in presenting the whole of our mental phenomena, will included, as dependent on matter and energy, before it had begun to present to us the idiosyncrasies of each individual, as similarly dependent on the physiological process of heredity, and to show that as surely as our characters determine our will, and our brains determine our character, so do our physiological

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The will, the
physics of the
brain, and
heredity.

antecedents determine the idiosyncrasies of our brains. Thus the difficulty inherent in the doctrine of free-will is embodied and forced on our attention in one set of arguments more.

Here we have before us the various successive forms in which this problem has presented itself to the intellect of the Western world. In its first definite form it is a problem of Christian orthodoxy ; in its second, of natural theism ; in its third, of psychology ; in its fourth and its fifth, of physiology. In the following chapters we will consider it more closely ; but before proceeding to do this there are a few observations to be made.

With the problem of free-will as connected with Christian orthodoxy, we have nothing at all to do ; for the doctrines of religion which concern us in the present volume are not any doctrines which Christianity professes to reveal, but merely the doctrines which it, like other religions, presupposes. On the other hand, in its connection with the doctrine of God generally, we shall find that to-day it presents to us precisely the same difficulties as those which it presented to St. Augustine and his patristic and scholastic successors. For the moment, however, any aspect of it which involves any postulate of religion whatsoever is beyond the scope of our argument, and must be put altogether aside ; for what we are now considering is not the nature of any difficulties which religion, if we accept it, may introduce into the admitted facts of experience, but the nature

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of the difficulties which the admitted facts of experience put in the way of our accepting the fundamental doctrines of religion. Waiving, then, all such theological questions as whether the free-will of man is compatible with the omnipotence of God, we will confine ourselves to the problem as it is put for us by psychology, and the newly-developed physical sciences which deal with the human organism.

These latter sciences alone exhibit it under any aspects that can be looked on as modern in the narrower sense of the word ; but its psychological aspect is equally modern in one sense—in the sense that whatever advances may have been made in our knowledge of the human mind by the sciences that deal with the body as its inseparable basis and equivalent, the psychologist's study of its phenomena as revealed to us through the medium of consciousness is just as vital for us now as it ever was in the past. Indeed, if we would understand the problem of will at all, we must see how it is stated by the psychologist first, and give our attention to its material and biological aspects afterwards. We will therefore begin with considering it as a problem of pure psychology—as a problem presented to us by the facts of our own inward experience.

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The aspects of the problem which concern us in the present discussion.

CHAPTER VI

THE DETERMINISM OF PSYCHOLOGY

The funda-
mental facts on
which the
question de-
pends are
simple.

WHEN we approach will as a purely psychological problem, the reader will find it much simpler than he possibly has been inclined to anticipate; and though he may never have opened a psychological treatise in his life, he will be tempted to tell himself at each new step of our argument, that he has thought psychology without knowing it, as M. Jourdain had talked prose. The treatises on psychology which philosophers have written are innumerable; the writers vary in their language; they vary in their arrangement of their subject; but the fundamental facts on which the question of free-will turns are for all of them absolutely the same. They are facts, moreover, which every human being, whenever his attention is called to them, will recognise as familiar to himself. As soon as it is stated simply, he will see that each one is a truism.

The first of these facts is this. Any act which we consciously will to perform and do not perform automatically, or under pressure of physical coercion, we

perform and will to perform because our nature is such that we look on the results of such an act as desirable. Thus we will to eat for the proximate reason that we naturally desire food, or else for the ultimate reason that we naturally desire to live. If eating were not necessary to our physical health and strength, and if food gave no more pleasure to us than filling our mouths with sand would, or again, if, like carrion, its sight and smell were disgusting to us, we should no more will to sit down to the most exquisite dinner than we should will to lick the buttresses of Westminster Abbey, or to pick up, suck, and chew any heap of filth in the street.

This fact the reader may be left to verify for himself. And now from this fact let us go on to another, which follows from it. Since no act of will can take place at all, unless there is some object of desire to the gaining of which the act refers, it follows that if a man is so situated at any moment that one such object, and one alone, is presented to him, there being no other in the background which, by gaining this, he would lose, one act of will, and one act alone, is possible to him—namely, the will to do that by which this one object is to be gained. Let us take for example a famished man in a boat, too weak, for want of food, to row, or hoist sail, or signal. He wishes to live, but can do nothing to save himself. He might do something if he could eat. Without food he is helpless. Suddenly a fairy or an angel puts down before him an excellent meal consisting of roast mutton and

Every act of will relates to an object held to be desirable.

If only one object of desire is present, only one act of will is possible. If several are present, the will is determined by the most desirable.

claret. The desire to consume this meal inevitably fills his mind; and since we assume that there is no other desire which conflicts with it, out of the desire to do this there inevitably springs the will. That is to say, in the presence of one object of desire only, a man as necessarily wills the means of gaining it, as a needle, not otherwise influenced, is drawn towards a neighbouring magnet.

This is so obvious as to be little more than a truism; and without quitting the obvious, we can go a step further still. We shall see, the moment we give our attention to the subject, that, just as in the presence of one object of desire only, a man can do one thing only, namely, will the means of gaining it, so in the presence of two or more alternative objects, each of which he desires, but desires in very different degrees, the man can only, other things being equal, will to gain the object his desire of which is most intense. Thus, if before the eyes of our starving solitary in the boat there were placed, in addition to the meal of good roast mutton and claret, another also, consisting of rotten blubber and bilge-water, and he had to make his choice between them, though inevitably in the absence of the good meal he would will to consume the nasty one, it would be equally inevitable, that a choice between the two being offered to him, he should will to reject the nasty one, and eat the good one instead of it. Just as water on an incline flows down the incline, not up it, so does man will in

accordance with his sole desire, or with the strongest.

In order to make these fundamental truths obvious, they only require to be stated in terms of simple examples. In actual life, however, they are very often obscured, because in actual life the facts are rarely simple, and permit of the slovenly thinker deceiving himself in several ways about them. Thus many minds have found consolation in thinking that the bondage of will to desire is somehow reduced to absurdity by what doubtless is one of its consequences—namely, that if a man should be placed in the presence of two objects equally desirable, he could, though his life might depend on his gaining one or other of them, will to gain neither, being impotent to choose between them. It is this situation which is illustrated in the parable of the ass who dies of starvation between two bundles of hay. But in such an imagined event there is nothing absurd at all. It seems absurd only because in actual life the conditions required to produce it are never completely realised. In actual life, if two objects of desire are ever desired simultaneously with an absolutely equal intensity, the absolute equality of the intensity lasts for a moment only. But so long as it does last, the situation of the ass is ours. To suppose that the ass will die with food on either side of him is absurd, if absurd at all, not because it involves a complete suspension of will by the equality of two desires, but because it involves the supposi-

This truth in actual life is obscured by the complexity of the conditions.

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The ass between the two bundles of hay.

tion that this equality is indefinitely prolonged. If the ass had to make his choice within three seconds, or die, his death would become at once the most natural thing in the world. Deaths, indeed, do occur from this precise cause often, many an old woman being killed by a butcher's cart in the street, because, though the safety desired by her is open to her on either side, she cannot decide in time on which side she will seek it. Again the doctrine that when two desires are unequal, the will is determined necessarily by that desire which is strongest, to many people seems to be refuted by an obstinate feeling on their own part that they could, if challenged to do so, will in accordance with the weakest. But they wholly forget that they are here secretly introducing a third desire stronger than either—namely, a desire to disprove that the strongest is that by which their will is determined. Again, this bondage of the will is obscured by the further circumstance, that in actual life the objects of desire, as presented to us at any given moment, are very rarely presented in ones and twos. There are generally several—often a considerable number. Moreover, they are arranged not only side by side, but also behind one another in a series of receding consequences, so that an object immediately desirable may, on account of its consequences, be abhorrent to us; and an object immediately abhorrent may, on account of its consequences, be desirable. The action of desire on the will becomes thus difficult to calculate, like the

total of a long column of pounds, shillings, and pence ; and because we are most of us bad mental accountants, and rarely do the same long sum twice with precisely the same results, some of us are led to fancy that more than one true answer is possible. But such circumstances as these, though they may obscure, do nothing to alter the fact—the simple and fundamental fact—that the bondage of our wills, in every act of willing, to the sole desire, or the strongest desire of the moment, is absolute, necessary, invariable. It admits of exceptions no more than does the law of gravitation itself.

This is, indeed, now admitted by thinkers of all schools ; and those who endeavour to place freedom on a reasonable basis have agreed to transfer their claim from the immediate act of will to the desires from which the will results ; maintaining that we are free, within limits, to govern our desires, at all events, and so to govern the will, through its necessary submission to these. Our next step must be, therefore, to consider the desires themselves—how they arise, and by what circumstances they are conditioned ; and see if any principle of freedom can be arrived at by this route.

Here again the primary facts are obvious. Every desire is essentially a composite thing—the resultant of two factors. One is some object or combination of objects—physical or spiritual—with which we desire to place ourselves in some specific relation ; the other is some quality in ourselves—the beings who desire to do this ; and we experi-

Desire determines will.
Can man determine his desires ?

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 Are men free
 to modify their
 desires?

ence this or that desire in particular, because the objects are what they are, and not something else, on the one hand; and we are what we are, and not something else, on the other hand. Thus our desire for food depends partly on the fact that food is edible, that it is nourishing, and that it exists; and partly on the fact that human beings require to eat and to be nourished.

Now we all of us can see that, in the case of the desire for food, neither of the two factors depends on any choice of our own. We had no voice in deciding that food should be nourishing. We had no voice in deciding that our bodies should require to be nourished. The desire for food, therefore, regarded under its most general aspect, is obviously imposed on us from without. We are its puppets, not its masters. And what is true of this simple and primary desire for food is also fundamentally true of all other desires whatsoever. The possibility of their existence and their general character, at all events, depend on two factors, over neither of which we have any of us the least control.

Does this fact, then, prevent us from entertaining the idea that, although our desires are given to us like a hand dealt us at whist, we can somehow govern them, when given to us, as freely as we can play our cards? That it would prevent us, under certain conditions, is self-evident. If all our desires were reduced to the one desire for food, if food were of one kind only, and obtainable in but one way, and if moreover we could, by absolutely

continuous labour, secure only enough of it to keep ourselves just alive, to suppose that we had any power of governing this desire would be ludicrous. We could govern it only by moderating it, and to moderate it would cause our death; for we should but barely live by indulging it to its utmost extent. This condition of things, however, does not correspond to reality; but it differs from it in this way only. Our desire for such things as are absolutely essential to our existence—a desire which, from its very nature, is practically the same for all of us—does not, as a fact, require our entire efforts for its satisfaction. After it has been satisfied, it leaves us abundant leisure to desire and to seek the attainment of a number of other objects; and these other objects, unlike the necessities of existence, excite our desires not uniformly, but in very varying degrees.

Now it is solely because of this fact that, whilst certain of our desires are uniform, and are plainly imposed on all men by the same external causes, others are susceptible of infinite degrees of modification, that the hypothesis of some force residing altogether in ourselves, by which the determining action of external causes is modified, to many minds seems an hypothesis which is warranted by observed phenomena. They assume that variety is a necessary indication of freedom. But is it so? That is the question. For the assumption that it is, there is at least this to be said, that freedom, if it

existed, would certainly cause variety; and if the varieties of desire were not otherwise explicable, we might find ourselves driven into assuming that some principle of freedom must be their cause. But before resorting to this extreme hypothesis, we must remember that, as even the advocates of freedom acknowledge, a very large part, at all events, of the varieties we are seeking to explain is obviously due to causes no less external and necessary than those which impose on men the general uniformities of hunger. For just as it is a fact that causes external to themselves—namely, the causes that brought them into the world, and the constitution of the world itself—impose desires on all men that in many respects are identical, so it is a fact equally evident that precisely the same causes qualify the desires of each man by a number of individual peculiarities. Whatever may determine the details of congenital character, they are not determined by the choice of the new-born baby; and in each case the details of congenital character are different. And not only in each case is the congenital character peculiar, but the circumstances which surround it from the first, and render its development possible, are in each case peculiar also, and leave their peculiar impress on it. Thus, even were every trace of internal freedom absent, each child would find itself, by the time it was capable of reflection, endowed with a multitude of desires already formed and graduated, which would not correspond precisely with the desires of any other, and which would cause

each child, in the presence of the same desirable objects, to desire them in different degrees, and behave differently in respect of them. And what is true of the child is true of the man also; for in the succession of internal states and the succession of external circumstances there is nowhere between childhood and manhood any breach of continuity.

Thus, however convinced we may be that amongst the facts of our mental experience there are some which prove the existence of a principle of internal freedom, and cannot be explained on any other hypothesis, it is evident that the limits within which these facts must be sought are very much narrower than a great many people have supposed. And this the modern defenders of free-will admit. Whilst continuing to assert just as vehemently as ever that a certain principle of absolute freedom resides in us, they have gone on reducing the area within which they claim that it operates, until now it appears, to judge from the language of many of them, that its operation is manifest only in those peculiar cases in which the desire to do what is right—the desire to do what is our duty—is opposed to a desire, the gratification of which we believe to be wrong in itself, or, because it conflicts with some duty, to be wrong at a given moment.

In order to show the reader who is unversed in psychological controversy that the doctrine of freedom is now, by most religious apologists, definitely reduced to this modified form, I will refer him to Dr. W. G. Ward, one of the keenest of

Modern apologists have reduced their doctrine of the freedom of desire to very narrow limits.

modern Roman Catholic thinkers, whose manner of stating the doctrine, and portions of whose very terminology, have found their way into the textbooks of modern theological colleges. Admitting that will is possible only as the result of desire, and is necessarily determined by whatever desire is the strongest, Dr. Ward proceeds to declare that desire is of two kinds. He calls one "spontaneous impulse," the other he calls "resolve." Spontaneous impulse is desire conditioned wholly by causes which are external—external either in the sense that they are outside the individual altogether, or in the sense that, consisting of qualities already developed and existing in him, they are beyond his control at the moment when the spontaneous impulse forms itself. Resolve is desire for an object which, tested by our spontaneous impulse, would be less desirable than another presented to us at the same moment, but which we contrive, by some special mental process, to place in a light which renders it more desirable; so that, desiring it more than the other, we will the conduct that will secure it for us. Spontaneous impulse, in short, as Dr. Ward defines it, corresponds with desire as conceived of by the most rigid determinists; and so far as there is nothing to counteract it, he admits that our actions are necessary. But resolve provides us with the requisite counteracting element. It contains the element of freedom which determinists maintain to be impossible; and the uniformities of spontaneous impulse may always on occasion be counteracted by it.

“Given,” says Dr. Ward “(at any particular moment) certain faculties, tendencies, habits, and the like in the soul, . . . science, considered in its abstract perfection, may infallibly calculate the will’s spontaneous impulse”; but, he proceeds, we know from the facts of our most intimate experience that we have at the same time “the fullest power of opposing it”; and because we have the power of opposing what would otherwise be necessary, we are free.

Dr. Ward’s doctrine of resolve and spontaneous impulse.

He illustrates his meaning by the case of some public man, devoted to hunting, and living in a hunting country, who is enjoying, as he sits at breakfast, the prospect of a fine day’s sport. His carriage is waiting to take him off to the meet, when the post brings a letter which begs him to come up at once to London, in order that he may help to settle some matter of public business. Shall he obey the summons, or stay where he is and hunt? His spontaneous impulse is to stay where he is and hunt, leaving the business to take care of itself; and that he should act as spontaneous impulse prompts him is a kind of event which is not only possible, but common. Nevertheless, it is not inevitable; for although, if the man abandons himself to the influence of external causes, his desire to hunt is stronger than his desire to attend to the business, and although in this case he must inevitably stay and hunt, it is possible for him to put forth an “anti-impulsive effort,” and, by “reasoning on the importance of the public interest at issue,” to strengthen his desire to attend to his public duties, until it becomes

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stronger than its otherwise invincible rival. Accordingly, says Dr. Ward, we will suppose that our public man makes this effort ; he resolves to forego his hunting, and tells his coachman to drive him, not to the meet, but to the station. Whilst he is on his way, however, there "supervenes a compound phenomenon" in his mind. On the one hand, his spontaneous impulse is struggling to shake itself free from the alien force that is interfering with it, and to make the desire of hunting once again preponderant. On the other hand, resolve meets this struggle with "unremitting energetic resistance"; and whenever the weights which reason has added to the desire of duty slip or are slipping from the scale, it lifts or pushes them back again. Here we see what the operation of human freedom is. Apart from the interference of resolve, our entire desires and actions are necessary, and conceivably calculable by the scientific observer ; but resolve itself—the single disturbing element—"is external to science altogether." No knowledge of the facts of a man's character, of his past history, and of his circumstances at a given moment could enable us to predict whether, at that given moment, he would exercise his faculty of resolve, or whether he would forbear to exercise it. In this respect, says Dr. Ward, and in this respect alone, is man's life a less necessary process than the ordinary processes of nature. And in asserting that it thus differs from them Dr. Ward begs us to observe that we are not denying the facts or the logic of determinism, but

are merely insisting that practically these facts are affected by a single other fact of quite independent origin.

Impossibility of differentiating resolve from spontaneous impulse.

It is impossible to state more unequivocally than it is thus stated by Dr. Ward the doctrine of free-will, as it presents itself to, and is put forward by, the religious apologists of to-day, who set themselves to argue the question on the ordinary grounds of experience. And now let us ask what their statement of the case comes to. We shall see that it comes to nothing. We shall see that it leaves the question precisely where it was before.

If we say that our power of resolve is free, we mean that it is a power which we are, irrespective of circumstances, equally able to exercise or leave in abeyance. We are not compelled to exercise it by any intolerable consequences which would follow on our failing to do so. On the contrary, if we never exercised it at all, our spontaneous, or in other words our necessarily-determined, impulses would direct life's conduct for us, in ways which would be perfectly reasonable, and would not be distinguishable on the surface from what they would be if resolve operated. This Dr. Ward grants. Facts, he says, force us to grant it. Apart from resolve, then, the entire conduct of a man resembles a motor-car which, by means of self-steering machinery, will take its occupant automatically in the direction most agreeable to himself; and such being the case, resolve, the sole undetermined factor, will resemble a pulling by the occupant's hand of a lever, which

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gives the car a direction which it would not otherwise take. Moreover, since resolve, as Dr. Ward insists, involves from its very nature an element of painful effort, we must suppose that the lever is more or less hard to move, and that moving involves a severe strain on the muscles. Expressed in terms of this simple illustration, the doctrine that resolve is free reduces itself to an assertion that the occupant of the motor car is, at any moment of his excursion, equally free to pull the lever and not to pull it. He is free not to pull it, because the car is automatically taking him in the direction in which, under the circumstances, he most desires to go; and yet under these same circumstances, and at the very same moment, he is just as likely, with no determining motive, to strain his muscles by tugging at this piece of reluctant mechanism, in order to give the car a direction totally different. Is such conduct on the part of such a man conceivable?

As soon as we put the matter in plain terms like these, we find ourselves brought back to the point from which we originally started; and the whole question of motive has to be argued over again. How is it possible, we ask, that the desire which we call resolve can arise independent of circumstances when the desire which we call impulse cannot? This is a question to which we shall find there is no answer. We shall find that both sets of desires are, in this respect, on the same footing, and that Dr. Ward and his friends imagine that there is a

difference between them only because, whilst they have carefully analysed the one, they have instinctively refrained from any similar analysis of the other.

Resolve cannot
arise without
motive.

Let us consider this point carefully. To the assertion just made that the man in the motor-car, if he pulled the lever, would be pulling it without any determining motive, Dr. Ward and his friends would at once reply that he has a motive—a motive generated by himself, and consisting of some desire which, though naturally weaker than another desire opposed to it, he, by an act of free resolve, strengthens, so that it now overbears the desire by which it was previously overborne; and they would add that the man knows that the case stands thus from the sense of struggle in himself by which the act of resolve was accompanied. But in saying this they would be wholly forgetting one thing. They would be wholly forgetting that, according to their own analysis, a struggle of this precise kind has taken place already, as an integral part of the process which results in spontaneous impulse, and which we are here representing as the car's self-steering machinery. Spontaneous impulse, as Dr. Ward himself points out, though it consists of the desire which at any given moment is the strongest, is not necessarily or even usually a desire for the satisfaction which at the moment is nearest to us. It is constantly a desire for one which is more remote, and in order to gain which the nearer satisfaction must be renounced. Thus, though the stronger

desire prevails, if resolve does not interfere with it, and though its satisfaction is thus rendered inevitable, this result is not accomplished without a sense of pain arising from the loss of a satisfaction which, though we desire it less than the other, we nevertheless desire, and in some cases desire keenly; and a sense first of struggle, and subsequently of resolute self-denial, is the form which this pain will take, and is the only form which it can take. If, then, owing to what Dr. Ward calls "the entire circumstances of the moment," the man in the car has any conflicting desires with regard to the direction in which the car is to take him, a struggle between them is taking place and is being decided for him by the necessary working of the automatic mechanism under his feet. Every desire arising in him as the result of his circumstances is a part of that mechanism; it puts forth its utmost force, and the weaker forces necessarily yield to the stronger. So far as his desires are determined by his circumstances at all—and his circumstances include, as Dr. Ward tells us, "the faculties, tendencies, habits, and the like, of his soul"—the man, apart from the mechanism, has no desires whatever. The mechanism has absorbed them all, and gives him the exact resultant.

In what way, then, can we suppose that some new desire is created, in obedience to which he will strain himself to interfere with the action of the others? Can we suppose that a desire like this creates itself suddenly and of nothing? Dr. Ward and his friends will answer that they do not contend that

it does so. It is not the creation of a new desire, but the intensification of an existing one. But this is only thrusting the problem an inch or two further back. To intensify an existing desire, there must arise the desire of intensifying it. A second ago this desire was in abeyance. Now it is in vehement operation. How does such a change originate? Our question is still unanswered. Given some circumstance which might produce it, the desire is perfectly explicable. It is a kind of desire which, the appropriate circumstances being given, constantly plays a part in the mind's spontaneous process; but with no circumstances to produce it, how can it possibly be produced? We shall see that under such conditions its production would be utterly impossible; and, in order to convince ourselves that it is so, we need hardly go further for proof than the language used by Dr. Ward himself when he is endeavouring to show that it is possible, and actually takes place.

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 Dr. Ward's
 own example
 of free resolve
 refutes his
 theory of it.

Let us turn back to Dr. Ward's own illustration of the public man, whose spontaneous impulse is to hunt, and who forces himself, by a free resolve, to go to London instead. Apart from this free resolve, Dr. Ward frankly admits that the man is the puppet of "his entire circumstances at the moment"—that is to say, of causes over which he has no control, either because, being facts of nature, he could never have controlled them at any time, or because, being facts of his own past life, he cannot control them now. The only question is whether, all these

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circumstances being given, his resolve can modify them without any dependence on what they are. We have only to consider the case as stated by Dr. Ward himself to see that, on his own showing, a resolve of this kind is unthinkable, for he cannot himself describe it without surreptitiously introducing that very dependence on circumstances which he professes altogether to have excluded.

The spontaneous impulse of the public man is to hunt, because, says Dr. Ward—and these are his own words—the desire to hunt is imposed on him by the “entire circumstances of the moment.” “On the other hand, his reason recognises how very important is the public interest at issue. He therefore,” says Dr. Ward, “resolutely enters his carriage and orders it to the station.” Or, to use our former simile, he tugs as hard as he can at the lever of his motor-car, which would otherwise automatically take him off to the meet. Now what, let us ask, does this statement mean? It means that the act of resolve—the vehement tugging at the lever—is contingent on an act of reason that goes before it. But is the fact that this act has just taken place not itself one of the circumstances of the moment at which the resolve is formed? Amongst the circumstances of the moment which produce spontaneous impulse Dr. Ward expressly mentions “faculties, tendencies, habits.” Is not reason a faculty? Does not our readiness to exercise it depend on our habit of exercising it? And does not habit depend on our natural or acquired tenden-

cies? On what ground, then, can Dr. Ward maintain that, whilst the circumstances of the moment include the man's faculty and habit of hunting, his entire circumstances—his circumstances taken in their totality—do not include his faculty and habit of reasoning? It is obvious that they are not only a part of the circumstances, but are also one of the most important parts; and it is only because Dr. Ward arbitrarily neglects this fact that the opposition between the impulse, which is the necessary resultant of circumstances, and resolve, which he alleges to be independent of them, is invested by him with even a semblance of reality. In reality, so far as reason and observation can guide us, the one is the result of circumstances no less than the other; both are equally mechanical; and, if resolve differs from spontaneous impulse at all, it differs only as a donkey engine differs from the main machinery of a locomotive with parts of which now and then it puts itself into gear.

St. Antony and his resolves to resist temptation.

We can place this truth in a stronger light still by means of another illustration which is better than Dr. Ward's. The interest of the subject is, both for him and us, due to its connection with the question of moral and religious virtue. Instead, then, of a politician struggling with a desire which in itself is harmless, let us take a saint struggling with one which in itself is sinful. Let us take St. Antony, tortured by a spontaneous impulse to embrace one of the she-devils, with claws for feet under her petticoats, who—if we may trust painters

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St. Antony's
resolves con-
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of his past life.

—assaulted his chastity in the desert. He resists the impulse by painful and prolonged resolve; and in this resistance every Christian assumes that we have a typically moral action. But what does this assumption imply? It implies, in the first place, that the resistance had no bad motive—that the saint did not refuse himself to his sinister temptress to-day, in the hope that she would return and subdue him in a preferable form to-morrow. It implies something else also. If St. Antony had confessed to the Church that all his famous resistances not only had no bad motive, but had also no motive at all, they would, in the eyes of the Church, have lost their character of saintliness just as completely on the latter ground as on the former. In order, then, that they should possess the moral quality attributed to them, every Christian—every religious man—assumes that they must have a motive, and that this motive must be a good one. In a case like St. Antony's there would probably be more than one. There would be the desire to avoid hell, the desire to attain to heaven, and the yet more specific desire to unite his life to Christ's. Of all these motives, to a saint the last would be most essential. Now, if Christ had never lived, and if St. Antony never had heard of him, it is obvious that the existence of this supreme motive would have been impossible. Did not Christ's life, then, and St. Antony's consequent knowledge of him, form part of St. Antony's circumstances at the moment of his forming his resolve? And were not both of

these circumstances imposed on him by external causes? He had no voice in deciding that Christ should be born, or that he himself should be born amongst people who could reveal the fact to him. Let us, from his circumstances in their entirety, subtract either of these—the previous life of Christ or his own opportunities of hearing about it—and can we suppose that the character of his resolves and his resistances would not have suffered any appreciable change? If they would not, Christ died and was preached in vain. If they would, then resolve is not independent of circumstance.

The defenders of the freedom of resolve are certain to reply here, that though the Christian may owe his knowledge of Christ to circumstances, these circumstances do but furnish him with an opportunity of submitting himself to Christ's influence, which he is equally free to embrace or turn away from ; and that thus the principle of freedom remains as free as ever. But in arguing thus, they are not meeting the difficulty. They are merely running away before it, like a man running from a train, which, before he has gone a yard, overtakes him and knocks him down. Let us, however, take them at their word, and follow them step by step. Let us grant them for the moment, that St. Antony, or any other saint, when he heard of Christ first, was equally free to love him or not to love him ; and let us grant that the fact of his having chosen the former alternative, and having thus laid the foundation of a Christian life, was a fact which redounded to the credit

Impossibility of showing that the Saint's resolves are not conditioned by his past and external circumstances.

of his own free-will only. But when once his free-will has initiated this new relationship, all Christian objectors will admit that in his subsequent resistance to sin, his love of Christ, which has now become one of his circumstances, must make the effort easier than it would have been, were this love absent. Thus, whenever one of his resolves is struggling to complete itself, a moment must necessarily arrive at which the presence of this love for Christ carries the resolve to its completion, and at which, had this love been absent, the end of the struggle would have been failure. In other words, at such a moment as this, his resolve is determined by circumstances, and is no longer free. Determinism has caught us up, and holds us in its grip once more ; and as often as we try to escape from it, it will catch us in the same way.

If any Christian objector still remains unconvinced, we may refer him to the language of one whose opinions and penetration he will respect. If the men of Sodom, said Christ, had been able to hear *me*, the men of Sodom would long ago have repented. An external circumstance being present they would have resolved in a certain way. They failed to do so only because the circumstance was absent. No statement of the doctrine of determinism can be more distinct than this. And from this statement of Christ's, we may, if we please, turn to any spiritual biography that ever has been written, or can be written; and in every spiritual conversion, and in every moral struggle, we shall find some external cir-

cumstance presented to us as the determining factor. To Paul the voice of Jesus comes, crying direct from heaven. To Augustine the angel with the book appears, saying "*Tolle, lege.*" In one man, illness, misfortune, or the loss of a beloved friend, effects a sudden change in his sense of the relative value of things; in another, a similar change is effected by a friend's example, or an incident which renews in his mind the impressions of past years. "This thing and that thing happened; therefore I thought or felt so and so; my thoughts or my feelings were diverted by it into this or into that channel." Such is always the language of Christians who describe their own moral crises, excepting in rare cases, when their power of analysis fails them; and then any moral victory which they cannot explain otherwise, is invariably referred by them to the grace and the intervention of God. It is never described as an act independent of motive and circumstance. And the reasons why it is never so described are two. In the first place, such an act is indescribable; and it is indescribable because it is not clearly thinkable: and, in the second place, even were such an act possible, it would not, analytically considered, be a moral act at all. It would be more like the act of a drunkard than it would be like that of a saint.

We thus see that if we examine the precise kinds of conduct in which those who maintain the doctrine of moral freedom are most anxious to demonstrate that the principle of freedom is

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Failure of all attempts to state freedom of the will in a thinkable form.

operative, the principle disappears under the analysis of these thinkers themselves, as completely as under that of their opponents. Innumerable attempts have been made to find, on psychological grounds, a means of escape for this great moral difficulty ; but they, one and all of them, come to the same thing—not to a solution of the difficulty, but to a disguising of it. They are, moreover, all of them fundamentally the same in character. Each consists in an attempt on the part of its author, firstly, to dress up his own proposition that resolve is free—which is unthinkable—in the clothes of another proposition—its half-brother—which is a truism ; and, secondly, to substitute for the objections of the determinist, which are unanswerable, others which are perfectly answerable, but are not put forward by anybody. Let us see how this is.

That, when not physically coerced, we are free to act as we will, and that at any given moment, out of two opposite courses, we are free, if we will, to take one or the other—this a truism. It simply amounts to saying that if I am thirsty, and will to drink, I am free to drink ; or if I am hungry, and will to eat, I am equally free to eat. This proposition the psychologic opponents of determinism invariably confuse with a proposition totally different—namely, that whether I am hungry or thirsty is a question which I decide for myself—that if, at a given moment, I am longing for a glass of water, I am able to make myself long for a dry biscuit instead. This latter proposition is the one that

they are really defending; and it is not only different from the former, in which they attempt to merge it, but is also in marked contrast to it. For the truism which is expressed by most writers in the formula, "We are free to act as we will to act, and to take either of two opposite courses, if we will to take it," means much more than that we are free to behave in this way. It means that we are not free to behave in any other. Thus the opponents of determinism seek to prove the doctrines of freedom by representing the unanswerable proposition that our acts are necessarily caused by our wills, and our wills in their turn are necessarily caused by our desires, as identical with the proposition that our desires are not necessarily caused by anything.

And this observation will introduce us to the second part of their procedure—namely, their attempt to dispose of the objections which determinists urge, by taking others which have merely a superficial resemblance to them, and belabouring the latter instead of meeting the former. These attempts are all of them in their nature essentially the same. They consist of a misconception or misrepresentation of what the determinists say about cause: and we find a complete example of them in Father Maher's book on Psychology. Father Maher says that a free act is declared by determinists to be impossible, on the ground that it is essentially an act without a cause. What objection, he asks, could be more shallow than this?

The confusions of thought which characterise the arguments of the defenders of free-will.

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The defenders of free-will habitually miss the real point at issue.

The act has a cause, and this cause is the will of the man who performs the act. And having said this, he imagines that his opponents are silenced. The truth is that he confuses himself altogether as to the real point of his own doctrine and the point of the determinist's objection to it. No determinist taxes the defenders of moral freedom with saying that if a man does one thing and does not do another, his desires, his will, and his faculties are not the cause of what he does. A man may be compared to an engine running from Brighton to London, which at Croydon takes the line either to London Bridge or Victoria. If it goes to Victoria, the cause of its going is the engine. If it goes to London Bridge, the cause is the engine likewise. But in saying that this is so, we leave the question untouched of why the engine goes to this station, not that one. Similarly, a man may either eat or drink; and whichever act he performs we say that his will causes it. The opponent of determinism says this; the determinist says this also. There is here no question between them. The question between them is what, when one of these acts is performed, has caused the man to will this one and not to will the other. Why has he drunk a glass of water instead of eating a biscuit? Or why has he eaten a biscuit instead of drinking a glass of water? To say that the cause of his eating or of his drinking is his will, is not to answer the question, but to ignore it. In the case of the engine, if it goes to London Bridge, the cause of its movement of course is its own

machinery ; but the cause of its going to London Bridge instead of going to Victoria is not its own machinery, but a movement of the points at Croydon. Similarly, in the case of the man's eating or drinking, his will is the cause of his doing whichever he ultimately does ; but the cause of his doing one, and not doing the other, is some determining fact amongst his own previous circumstances—either some process, of which he knows nothing, in what is vulgarly called his own inside, or some fact which he knows—such as the fact that ten minutes ago he had had something to eat, but could get nothing to drink ; or had had something to drink, but could get nothing to eat. The defender of the doctrine of freedom, instead of facing this fact, shirks it. It is, indeed, a doctrine which can be regarded by us as an intelligible or a thinkable truth, only so long as we do not look at it steadily.

Such, then, is moral freedom as it presents itself to the observation of the psychologist. It is a dream—a chimera. In the language of Hobbes, it is “nonsense.” As a recent writer has said, “The last word of psychology is determinism” ; and on psychological grounds the doctrine of moral freedom is indefensible. The reader may here object that surely Kant defended it. He did defend it, but he did not defend it as a psychologist. As a psychologist he laughed at the idea of it. He defended it on grounds of a philosophy which professed to transcend the facts with which psychology

Freedom of the will in its last analysis absolutely unthinkable.

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Kant admits that psychologically the idea of free-will is an absurdity.

deals, or any science of any kind. We shall see in a future chapter that transcendentalism leaves freedom no less unthinkable than psychology finds it. All, however, that I have been concerned in the present chapter to show is the fact that psychology does find it unthinkable, and I will conclude by re-stating this fact in the words of Kant himself. "If we consider human character empirically"—that is to say, as a scientifically observable phenomenon—"and if into the soul of a man as expressed by his inward, no less than by his outward acts, we could penetrate deeply enough to know every one of the motives, even the slightest, which determine his soul from within; and if at the same time we could know with equal completeness every single circumstance which could act upon his soul from without, we should be able," said Kant, "to calculate his future conduct as certainly as we can calculate an eclipse of the sun or moon. . . . If we look at a man's character as observation and experience give it to us, there is no such thing as a principle of freedom to be found in it."

And now having seen what psychology has to say on the subject, we will turn to the physical sciences, and see how it is presented to us by these. We shall have the same conclusion forced on us, but forced on us in a new language—the same law given again from the summit of another Sinai.

CHAPTER VII

THE DETERMINISM OF MATTER

I HAVE shown already there are now two distinct ways in which the question of free-will is absorbed by physical science, and moral responsibility reduced to a biological problem. In the first place, the physicist takes the living individual as we find him, with his faculties and character given, and identifies these with the processes of the individual's own organism. In the second, he takes the physical organism as the result of its pre-natal antecedents, and connects its idiosyncrasies with those of its innumerable ancestors.

Free-will as it exhibits itself in the light of physical science.

Of these two methods of dealing with the matter we will consider the former first; and this again resolves itself into two parts, one of which presents the hypothesis of free-will to us as essentially inconsistent with the general principles of science, whilst the other presents it to us as inconsistent with particular scientific facts. We will take them in order—the difficulties, and the attempted solutions.

The argument that free-will is inconsistent with the general principles of science may be briefly set

forth thus. Psychology having shown that will is determined by desire, and that, when two desires are present, will is determined by the strongest, physiology translates this mental process into a cerebral process corresponding to it. The molecules involved in the latter we may compare to a number of billiard-balls, which, set in motion by some past stroke of a cue, and having at a given moment grouped themselves in the form of a circle, immediately afterwards group themselves in the form of a hexagon. Now just as psychology shows that the mental process, of which this grouping is the equivalent, takes place in accordance with the invariable laws of mind, so does physical science show that this grouping itself takes place in accordance with the invariable laws of matter, as we all know to be the case with the balls on any ordinary billiard-table. When once a player has made his stroke at pool, every grouping of the balls that results from it is predetermined and necessary. And the same holds good of the movements of the countless billiard-balls of the brain.

Now, that the brain has movements of its own independent of free-will, the defenders of free-will do not seek to deny. Their contention is simply that the action of free-will interferes with these—that it alters the angles at which the balls come off the cushions; that it turns them to the left when they are naturally rolling to the right; that it makes their course a curve when it would naturally be a straight line; that it accelerates

them when they are moving slowly, and checks them when they are moving fast. If the doctrine of free-will has any meaning at all, it cannot, say the scientific determinists, mean less than this; and such being the case, they proceed, the doctrine of free-will is in absolute and direct contradiction to the first laws of science. In especial, it is in direct contradiction to the law of the conservation of energy. It is a doctrine that energy can be annihilated, and new energy can be created; and to maintain this, they say, is no less absurd and monstrous than it would be to maintain that the will can annihilate and create matter.

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Free-will and
the conserva-
tion of energy.

Such is the primary difficulty which modern physical science puts in the way of those who maintain that the will is free; and it is but fair to say that they meet the problem, when science puts it thus, much more fully and steadily than they do when it is put to them by psychology. Numerous books have been written by ardent believers in freedom, in which the difficulty now in question is, as an isolated difficulty, courageously recognised, if not successfully solved. Let us now see what the attempted solutions are.

They are of two kinds; for the defenders of free-will are here divided into two opposing parties, each of which adopts an argument which contradicts that of the other. One party contends that the operation of the disturbing influence which a free hyper-physical will would exercise over the cerebral molecules need by no means involve, as

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men of science declare it must, any violation of natural laws at all. The other party admits that some such violation is inevitable; but contends that, whatever it may be, the principles of science will admit of it without any detriment to the theory of the general uniformity of nature.

The first of these two antagonistic contentions is as follows. Vital phenomena are distinguished from the phenomena of inorganic matter, not by suggesting the presence of any private and independent energy, but merely by exhibiting energy which, drawn from the common stock, is guided—not increased or diminished—by an influence elsewhere absent. The right way, therefore, in which to conceive of free-will is to conceive of it merely as a guiding, not as an impelling, force. Thus, if the cerebral movement which corresponds with some desire or resolution be compared to a billiard-ball moving in a physically normal course, free-will may be compared to a cause which neither starts the ball, nor checks it, nor accelerates it, but which simply deflects it to the right hand or the left. Now such a deflection, as we know, may be produced in the outside world, by a force which acts on such a body as a rolling billiard-ball, laterally; and when this cause acts at right angles to the course which such a body is taking, the deflection is produced—paradoxical as this may seem—without the expenditure of any energy whatsoever. This is a law of physics. Accordingly, it is argued, we may conceive of free-will as a force which thus acts at right angles on the normally moving molecules of

the brain, and, so doing, deflects them into non-natural courses, without any violation of the law of the conservation of energy being necessary.

Such is the contention of one party of apologists. Let us now turn to that of the other. This party begins with rejecting the first as valueless. Even were it true—so these thinkers argue—that the will might operate on the molecules in the manner just described, without involving a violation of the law of the conservation of energy, it would still involve a violation of the law of the conservation of momentum, which law, although it is not so generally understood as the other, is no less essential an element of the scientific theory of the universe. The plain truth is, however, that the operation of free-will, inextricably connected as it is with the movements of ordinary matter, cannot fail to involve a violation of both laws equally. It is impossible, they say, to get rid of this hard fact; but, they go on to add, it is quite unnecessary to do so; for, although these laws may be looked on as absolute in the sense that, apart from the action of free-will, they are never even momentarily broken in those processes of the universe which science is able to estimate, yet science can do nothing to exhibit them as absolute in the wider sense that they are valid in respect of the universe considered in its incalculable totality; and it is clearly demonstrable, on the principles of science itself, that the total energy of the universe might suffer minute subtractions or receive minute additions without

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the practical accuracy of the doctrine of the conservation of energy being affected. Accordingly, say these apologists, the believer in free-will may boldly "introduce the contingent into the heart of the otherwise necessary," and yet, like a reasonable man, look science in the face, assenting to every claim which, on its own principles, it can defend.

The reader will see that, in passing from the psychology of free-will to its physiology we have, from the atmosphere of a cloister, passed into that of a laboratory. The various facts on which the discussion turns are no longer facts which any thinking man may verify for himself by meditation on his own experience. They are facts which belong to the sphere of mechanics, dynamics, and mathematics; and are in themselves of a character so technical that none but specialists can discuss them in detail profitably. It is enough here to point out to the reader that the defenders of free-will themselves are so completely divided in their views that one half dismisses as nonsense the defence that is put forward by the other; whilst the man of science is certain to dismiss both as untenable; pronouncing all suppositions that the normal effects of energy can be in any way interfered with, without directly violating the order of nature, to be no less absurd than the supposition that this order would not be violated if in the brain or in the solar system there was a suspension of the law of gravitation.

On this point, however, it is hardly necessary to insist. For even if, with regard to the physics

of the brain generally, we admitted all that is urged by either school of apologists, we are brought no further than the purely negative proposition, that the action on the cerebral molecules of a free hyper-physical will is not, on the general principles of physical science, an impossibility. It still remains for us to deal with the question, yet more intractable, of whether the facts of science will allow us to regard it as a reality, and will not rather expose it to us as a baseless and unbelievable dream.

The facts of science to which I refer here are in their general character familiar enough to all of us. Whatever we may say of the dignity of the human mind and its superiority to the things of matter, its highest faculties and its most revered and sacred qualities are notoriously at the mercy of the vulgarest of material accidents; so that, whether or no the mind has any control over the brain, the brain, under certain conditions, has an absolute control over the mind. The question, accordingly, is forced upon even the most careless thinker, of whether this control on the brain's part, which on many occasions is so evident, is likely to be limited to these occasions only, and whether it does not extend itself over the entire field of life.

The defenders of free-will admit that this question is reasonable, and they are ready with an obvious answer to it which has an air of being reasonable also. The brain, they say, is undoubtedly the instrument of the mind, by which alone, in our present state of existence, it is capable of exercising

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The theory that the brain is merely the passive, though necessary, instrument of the mind and will.

its faculties, or revealing them to itself and others. It may, in fact, be compared to an organ—the pipes representing the emotions; the valves and levers, the intellect; the wind and the bellows, the energy supplied by nature; and the key-board, the mechanism by which the will controls the whole; whilst the mind is the free organist, sitting with the key-board before him, and making the instrument yield him whatever tunes he pleases. Now it is obvious, the defenders of free-will continue, that any injury done to any part of the organ, without in the least affecting the will or the intentions of the organist, will very materially affect the character of the sounds produced by him. He may strike a chord on the keys, but if some of the pipes are broken, or if some of the mechanism is deranged, no sound will follow, or else some unmeaning discord; whilst we merely have to suppose that the delicate attachments are destroyed by which the keys themselves and the rest of the mechanism are connected, and the organist, though his skill is as great and his will as free as ever, will have no control over the behaviour of the organ at all. Accordingly, in conclusion, the defenders of free-will argue, the admitted fact that the physical vicissitudes of the brain interfere with the will's power of expressing itself adequately in action, is precisely the result which, the freedom of the will being given, we should, from the physics of the brain, be naturally led to expect.

The argument is plausible; and it is perfectly

easy to imagine a condition of things under which it would be a complete answer to the kind of difficulty which it is put forward to meet. If the effects on the will, and on mental phenomena generally, produced by the vicissitudes of the brain, as a purely physical mechanism, were limited to a suspension of the mind's practical power of expressing itself reasonably in a reasonable course of conduct, we might admit that the only conclusion to which the facts pointed was, not that the brain is really the master of the will, but that it sometimes becomes, through misfortune, incapable of acting as its servant. And indeed, until a date still comparatively recent, our knowledge of the facts of the case was so vague, and arranged so loosely, that it allowed, if it did not invite us, to put this interpretation on them. It allowed us to regard the will as the free and independent organist, and the brain as the organ which emitted tunes at his bidding, except when it was rendered incapable of emitting any tunes at all. But we now have learned to realise, and we are realising each day more clearly, that the facts, when stated thus, by no means correspond with reality. Each day we are being taught in clearer and more startling detail, that our organ, the brain, is not only capable of refusing to play the tunes which the mind or the will of our hypothetical organist would impose on it, but it is capable also, in reference to purely physical stimuli, of grinding out tunes, totally different, of its own. If an organ with a Handel at its key-board,

The facts that
refute the fore-
going theory.

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The brain dictates to the will, besides occasionally refusing to serve it.

doing his best to play a passage out of *Israel in Egypt*, were merely to wheeze and groan, and emit an inaccurate note or two, we should all of us admit that in this fact there was nothing to show that the organ was master of the will of its accomplished player; but if, when the player was endeavouring to play an oratorio, the organ should begin to pour forth a series of jigs and waltzes, we should be driven to suppose in this case, what we need not suppose in the other, that the organ was really the originator of whatever tunes might proceed from it, and that the player was nothing more than a piece of its mechanism, after all.

And this is precisely what modern scientific enquiry is tending to show with respect of the brain and mind. It is showing us that the diseases and accidents to which the former is liable, or again certain kinds of medical and surgical treatment, may not only suspend on occasion the customary action of the latter, leaving thought, emotion, purpose, and will in abeyance, but may also, no less frequently, leave these in full activity, and yet at the same time have profoundly changed their character.

Let me put before the reader some few of the facts on which this demonstration, so inevitable in its character, is founded. In the first place, to present the matter under its most general aspect, the various faculties and states of the mind are now shown to be located in distinct cerebral areas; and thus the mind or soul, which, in pre-scientific days,

men were able to look upon as a single and indissoluble entity, is now revealed to us as a something made out of many bits, which is susceptible in theory of being taken to pieces altogether, and is often in reality taken partly to pieces by accident or by experiment.

As an illustration of this fact, I may mention a celebrated case—that of Phineas Gage, a foreman on one of the American railways. He was ramming a charge of blasting-powder with a crow-bar or iron rod, when the charge exploded, sending the rod through his head, and a portion of his brain was in this way altogether removed. The man nevertheless lived for a number of years afterwards, and so far recovered his faculties as to give rise to the report that his mind had suffered from the accident no more than his body had. His case, indeed, was quoted, in a popular psychological treatise, as a proof that the mind and the brain are essentially distinct things. When the facts, however, came to be investigated, it was shown by the report of the doctor who had treated the injured man and closely observed him afterwards, that whilst rumour had been so far correct that after his convalescence the man's condition and conduct would have seemed to a stranger normal, his moral and mental character had suffered a startling change. "The equilibrium or balance between his intellectual faculties and his animal propensities seems," wrote the doctor, "to have been destroyed. He is fitful, irreverent, indulging at times in the grossest profanity, which

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Examples of the brain's influence on the mind. Case of a general change of character caused by an accident.

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General character changed by injury to the brain.

was formerly not his custom." Previously valued by his employers, and popular with his fellow-workmen, the former could no longer trust him, and he lost his influence over the latter. Previously shrewd, sensible, and knowing his own mind, he became "particularly obstinate, and yet capricious and vacillating." His intellectual powers suggested those of a child, whilst "his animal passions became strong in proportion." His employers dismissed him, and his acquaintances said, "He is no longer Gage." How great a revolution in our conception of the relation between brain and mind has been brought about by discoveries which are still comparatively recent, is shown by an observation of Schopenhauer's to the effect "that though injuries to the head with loss of brain-substance are, as a rule, detrimental to the intellect, we never read that, after an accident of this kind, character has undergone a change—that the man has become morally better or worse—that he has lost particular propensities and passions, or gained any—no never.¹

And now from this example of what Schopenhauer thought impossible, and what previous philosophers, if they did not think it impossible, only failed to think so because they had not thought about it at all—from this example of the general change in character which the brain can impose on a man

¹ See Dr. Hollander's recent work *The Mental Functions of the Brain*, p. 19, where this observation is quoted. The various cases mentioned in this chapter are selected from those collected and described by Dr. Hollander.

as the outcome of a physical accident, let us turn to examples of a more particular kind.

Let us begin with memory. Memory is generally regarded as a single faculty belonging to a single and indivisible mind. It is also supposed to be so controlled by the will that it can retain or fail to retain any order of facts in accordance with what the will commands; and a moral and intellectual character is consequently supposed to attach to it. An accurate study of the mind as a function of the brain reduces these ideas to delusions. It shows us that memory is not a single faculty, but a group of faculties, each dependent on the physical apparatus proper to it, and that, according as this apparatus is physically sound or unsound, each kind of memory is either feeble or active, be the other faculties what they may. Thus many idiot children, quite unable to reason, have had, for certain orders of facts, memories as brilliant as Macaulay's. One such child could remember the name and address of every confectioner's shop it had ever visited in its life, together with the date of its visit. Another, who could never be taught to read the face of a clock, could always tell the time of day to a minute, its memory of duration was so retentive and accurate. A railway official, whose skull had been pierced by the spout of an oil-can, had twenty years of his life wiped out from his memory. Most of the lost events gradually came back to him; but he never to the day of his death could remember his way home. A German sculptor, having fractured the

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The religious consciousness changed by specific brain disease.

base of his skull, though his memory otherwise was practically unimpaired, forgot all his ideas of any number beyond three.

Next, as to fear and courage : a series of repeated experiments has shown the emotion of fear to be so completely dependent on a particular area of the brain, that if this area is removed, the emotion of fear goes with it. Experiments made on monkeys, pigeons, and dogs have yielded, in this respect, precisely the same results. A timid dog, who winces at the sight of a whip, will receive, after this operation, the menace of a thrashing with indifference.

Let us now turn to other characteristics of the mind, which, even more distinctly than these, belong to the moral character. Let us take the sense of sin, and the vengeance of God as due to it. Let us take the qualities of religious belief and of honesty.

If any mental affections are purely spiritual in their nature, we should naturally place amongst them a sense of sin and its consequences. But when this sense is developed in a very high degree—when the humble Christian sees ever before him the heaven he is unworthy to enter, and the hell to which justice dooms him—when, in a word, he develops the symptoms of religious melancholy, and, consigned at last to an asylum, dies under the doctor's care, the doctor finds that his spiritual and theological symptoms have been due to a disease in "the supra-marginal and angular gyri" of the brain. The brain has been the sombre theologian, the brain has been the despairing sinner ; and if only

some drug could have healed the diseased substance, it would have given back the sufferer his belief in the possibility of his own salvation.

Still more remarkable is the demonstrated dependence of honesty on a cerebral basis, which, if destroyed or injured, involves in its ruin that of the moral quality also; and which has its locality on the left side of the head. It is a well-established fact that damage inflicted on the skull at a certain spot somewhere over the left ear will turn men previously honest into thieves. Thus, for example, a soldier, who had borne an excellent character, was wounded in this place during the Franco-Prussian War. He recovered; but after his recovery he entered on a life of crime, being sentenced no less than eleven times for embezzlement. Another reputable man, in a small German town, was struck one day just over the left ear, by a long plank which protruded from a passing waggon. For the injury inflicted thus he was treated successfully in a hospital. He was discharged; and on the day of his discharge he was sent to prison for theft. And of similar cases there are a large number on record.

But of all such facts as these, those which are most instructive—which convey the meaning of all of them in the clearest and strongest language—are the facts relating to that quality in men with which the idea of virtue is associated most closely. I refer to the quality of chastity, popularly called morality, as though it comprised all the other virtues, or were the chief of them. This ethereal, this typically

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spiritual quality, modern research has shown to have its physical basis in the cerebellum; and whenever it is possible to examine the brain of those whose lives have betrayed a disposition of more than normal impurity, it is invariably found that their cerebella have in some way been diseased. Tumours in this part of the brain have often produced in children excesses of erotic desire which have ended in their early death; and a case is recorded of an elderly lady in Rome, who, after a life worthy of the proverbial maiden aunt, suffered a derangement of character in consequence of a similar tumour, and devoted her declining years to a course of belated gallantry. Again, on the other hand, the cerebellum is susceptible of injuries which lead to results of a kind precisely opposite, and which, instead of stimulating passion, reduce it to a profound quiescence. If facts like these were not sufficient in themselves to show how sexual virtue is empirically at the mercy of the brain, the changes which result when sex is artificially tampered with, give to the foregoing conclusions the precision they might lack otherwise. When the operation in question is performed on the right side only, there is a sensible diminution of the left lobe of the cerebellum. When the operation is performed on the left side, the cerebellum is affected on the right. When the operation is performed on an adult, though certain of his powers leave him, his mind is beset no less by erotic thoughts than formerly. In the language of theology, the devil tempts him still. When the

operation is performed on a boy under a certain age the formation of such thoughts never takes place again. The surgeon's knife succeeds where the spiritual struggle may fail; and whatever may be the boy's subsequent character otherwise, he at least merits the blessing pronounced on the pure of heart.

The overwhelming significance of such facts as these could hardly be shown more clearly than it is by the assertion of Schopenhauer, made at the time when science was on the eve of beginning its discovery of them—that facts such as these are not facts at all, and that no human being had ever pretended that they were. In these very facts we have what previous philosophers had not, a determinism from which there is no escaping—no escaping so long as we stand on those grounds of science which we all of us stand on in dealing with the common affairs of life. If abnormal conditions of the brain affected character only by suspending the action of the will as applied to the affairs of life, so that no apparent qualities, whether good or evil, were left to it, we might, let me say once more, contend with some plausibility that the will, untouched in the background, continued as free as ever. But since this is not the case—since the brain, when abnormally affected, besides on certain occasions rendering the will incapable of expressing its moral quality in any manner whatever, on other occasions suffers it to remain in extreme activity, and invests its actions with a moral quality which

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is new to them; since it forces the Christian to surrender his trust in God's boundless mercy; since it suddenly gives to the honest the perverse intentions of the pickpocket, to the chaste those of the profligate, and to the prurient the purity of a Galahad; since, in a word, the brain is shown to control the will in those very domains of conduct in which freedom is most vehemently claimed for it, to suppose that the will is a separate and independent force which imposes its orders on the organism of which it shows itself so frequently to be the slave, is to indulge in a supposition for which science not only affords no evidence, but which all the evidence collected by science contradicts.

And now, having considered the question of free-will in the light thrown on it by the connection which science shows to exist between every fact and exhibition of the individual character, and some equivalent fact in the individual brain and body, let us turn to the physical antecedents which have originated and determined both. And here again the proposition that freedom of the will is impossible—that no room is left for it anywhere in the scheme of nature—is repeated afresh, and demonstrated by yet another order of facts.

In former days when all accurate study of the mind was purely psychological or subjective, and when no idea had arisen that every mental fact was a physical fact also, the great question debated by rival schools of philosophy was whether all our

ideas and knowledge were derived from post-natal experience, or whether there are any which we brought with us into the world at birth. This long and bitter dispute has now been settled by science in a way which has rendered the old speculation obsolete. Science has shown that each school was at once right and wrong. It has shown that we have no ideas which are really independent of experience, but it has shown that we have ideas which are independent of the experience of the individual. It has shown us that every brain issues from the maternal womb, charged with the experience of its whole line of progenitors. When the baby develops, by imperceptible changes, into the child, and from an unconscious turns into a conscious being, separating itself and its body in thought from the things around it, learning to appreciate distances, to classify the objects presented to it, to apprehend something of the primary truths of arithmetic, and to recognise the world as a scene of calculable order—when this takes place science has now shown us that the individual human creature is rapidly re-enacting the mental development of his race, and that, partly owing to the growth of the individual's own brain, partly to the effects of the experience personal to itself, latent ideas and aptitudes are coming to life in its mind which it took the experiences and struggles of millions of years to plant there.

But what mainly concerns us here with regard to the operation of heredity is not the part played by

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 of character
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it in providing us with that intellectual outfit which, in its essential features, is practically the same for all of us. What mainly concerns us here is the different, but allied fact, that just as heredity provides us with the intellect common to all of us, so does it provide each of us with those minute differences of character in virtue of which no one of us is precisely like another. It gives us our various characters, as it gives us our various faces. It gives us, in addition to our common power of thinking, infinitely varied assortments of thoughts, desires, and instincts, written before our birth in a species of invisible ink, which the light or the heat of life gradually renders visible.

This fact is now so generally known and acknowledged that it here calls for illustration rather than proof or argument. I will, however, take an illustration which has the qualities of a proof as well—namely, the strange recurrence of the vagaries to which amative desire is liable. These vagaries are of a singularly significant kind. They are not blind impulses. They depend on a structure of thoughts. Now these thoughts are, from their peculiar character, thoughts which are generally formed by the mind in solitude. Moreover, in their details they are apt to be so fantastic, so perverse, so foolish, besides being so degrading, that those even who harbour them are unable to explain their origin, and constantly suppose themselves guilty of unique mental depravities which have never arisen in the mind of any human being before.

Ample evidence shows, however, that this idea is a delusion. We learn from priests who have generalised the knowledge derived from the confessional—we learn from observation of the most widely separated races—we learn from the literatures of the most widely distant times—from books of India, till lately unknown to European scholars—that whatever thought of this kind, however capricious and unlikely, may build itself up in the mind of a man to-day, has built itself up, with similar secrecy, already in other minds which have never had any communication, and, except for a common ancestry, have no connection, with his own. I mention this case as a single vivid example of how one generation physiologically creates the character of another—of how the child receives from its parents not its general temperament only, but also trains of thought which are most specific in kind, and which, though they may rest latent under a great variety of circumstances, are yet so engrained in the substance of the brain itself, that having slept through the life of one man, and again through that of his son, they may in the lives of his grand-children start into full activity. That, in the case of characteristics which are external and purely physical, a similar transmission takes place, is a fact familiar to all of us. We need no man of science to tell us that Ethiopians cannot change their skin, or that one drop of negro blood in an otherwise white family betrays itself for generations in the finger-nails, in the complexion, and in the hair.

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Thought transmitted like form and feature.

Mental character transmits itself in precisely the same way. That such, indeed, is the case frequently, has been matter of common observation ever since man first began to observe. From which of his parents or grand-parents does the child get this or that quality—his taste for music, or drawing, or sport, or his good or his bad temper? These are questions which people have been always asking. But if their attempt to trace the child's qualities to its parents was successful, they were accustomed, till lately, to look on such an instance of heredity as something curious, exciting, in some measure remarkable, as a kind of occurrence which was common indeed, but not inevitable, and which certainly did not suggest the operation of an invariable law, or a law which determined the child's congenital character as a whole. Science has merely taken these vague observations of fact, dear to the heart of garrulous aunt and godmother, has gathered them together into a single coherent system, embracing every quality which any child ever was born with, and has shown us that examples of heredity are so far from being odd or curious, that any congenital quality which was an example of anything else, would be a miracle like the production of a child without any parents at all.

Here, then, we arrive, by yet another and a final route, at one demonstration more that free-will is impossible. Psychology has shown us that will is determined by two factors—the external circumstances by which a man is at any moment sur-

rounded, and the various desires and thoughts excited by them in the man himself. The former, it is needless to say, are external to the man altogether, whilst the latter are determined necessarily by his actual character at the moment; and his actual character, through an unbroken series of developments, has been determined by the potential character which was his when his life began. Now psychology had no difficulty in showing that this potential and primary character, however it has determined itself, was at all events not determined by the new-born baby possessing it. But, dealing with the phenomena of the mind on their subjective side only, psychology was obliged to content itself with this purely negative proposition; and although this negative proposition was, in strict logic, sufficient to destroy, at its source, the idea that, at any period of his existence, any principle of freedom could be introduced into the human being, it left the nature and origin of our congenital disposition and faculties, so completely a matter of imagination and vague conjecture, that inaccurate and obstinate thinkers could still find room for supposing that amongst the inevitable characteristics which God or Nature had imposed on us, the desired principle of freedom might still be lurking somehow. This gap in the argument of psychology, physiology has filled up by its exposition of the facts, and its establishment of the principle, of heredity. It has thus stopped the last earth in which the phantom of freedom could

hide itself. It has thus supplied the last link in the chain by which man is bound to the mechanism of universal nature—has shown him to be part and parcel of one single and inexorable process, and no more responsible for any one of his thoughts or actions than he is for those of his grandfather, for the colour of his eyes, or for the history and temperature of the earth which have rendered his life possible.

In strict logic, to repeat what I have observed just now, it cannot be said that the physiological sciences, by linking the life of man to the physical processes corresponding to it, have rendered the doctrine of the existence of free-will theoretically more unthinkable than it had already been rendered by psychology; but they, nevertheless, practically have, to an incalculable degree, added force to what psychology tells us. They utter it in a new language; they present it to us in a tangible form. They placard the streets of the mind with diagrams illustrating its truth. Above all, they have reached the conclusion which psychology had reached before them, though they have travelled towards it by a wholly different route, and have set out from different points of departure. This coincidence in result of independent kinds of enquiry, this identity in the response which the universe yields to our interrogatories, whatever may be the order of facts to which these interrogatories are addressed—is the crowning witness to this great universal truth, of which the absolute necessity of

our volitions is merely an example and a consequence, namely, that the process of the entire universe is not two processes, but one ; or that even if we suppose them to be two, the two are so inexorably united that the one is just as uniform and just as necessary as the other.

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No place in the cosmos known to science for either free-will or immortality.

We have now concluded our examination of the two doctrines of man—the doctrine that he is immortal, and the doctrine that his will is free—which alone can present him to us in the light of a possible party to that moral, that personal, that direct, that abiding relation between the Divine and Human, which it is the essence of all religion to postulate. We have seen, as to his will, that he is nothing but a mere machine, who, whatever he does, deserves neither praise nor blame, since whatever he does he could not have done otherwise. And as to his alleged immortality, we have seen that the more deeply we penetrate into the observable facts on which his life and his mind depend, the more clear does it become to us that these facts, all and singly, exhibit his life as a mere fleeting phenomenon, which appears with the body and disappears with it, leaving nothing behind ; a kind of life which, even if God existed, could have nothing to hope for in his love, and nothing to fear from his displeasure.

But the course of our enquiry is not ended yet. We have ended our consideration of the religious doctrine of man. It remains for us to consider the religious doctrine of God. Putting the deficiencies

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considered.

of man altogether on one side, and supposing him to be capable himself of the religious relation on one hand, if only there is a God who is capable and who is worthy of it on the other, we have now to enquire whether the facts and methods of science compel, invite, or even allow us to believe that a God of this kind exists.

CHAPTER VIII

RELIGION AND THE GOD OF PHILOSOPHY

I WILL ask the reader to observe that the question now before us is not whether God does actually exist or no, but whether or no we can prove that he does so from facts as science reveals them to us: and before beginning the discussion let us make ourselves quite clear as to what kind of God the God that we are talking about is. We are talking about God as theistic religion conceives of him—we are talking of no other; and the God of theistic religion is represented as revealing himself in the universe, firstly, as the Mind which animates and moves everything; secondly, as a conscious and purposing Mind; thirdly, as a purposing Mind which is infinitely wise and powerful, and has created a perfect universe with a view to some perfect end; and lastly, as an ethical Mind which, out of all the things created by it, has selected man as the object of a preferential and consuming love, which has fashioned the earth with a special view to his requirements, which has established between each man and itself some means of direct inter-

Our concern is not with the God of philosophy, but the God of theistic religion.

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A large part of the ordinary apologetics of theism utterly useless for the purposes of the theist.

course, and which guides the course of human affairs generally in a way which for each man is ultimately the most advantageous. Every one of these aspects or attributes of God is for the theist just as essential as the other. Let one be subtracted, the others become valueless. A God who is merely Mind, or is merely conscious and purposing Mind, and who does not purpose wisely or morally, or with any regard to man, would not be the God whose existence the theist desires to demonstrate. The theist must prove God to be possessed of all the attributes he imputes to him, or else he has, from his own point of view, proved nothing.

Now the first thing that strikes us when we consider the matter thus, is that by far the larger part of the philosophical apologetics of theism consists of arguments which, if they stand by themselves, have nothing to do with the existence of the theist's God at all. I refer to the arguments, elaborate and endlessly reiterated, by which theists endeavour to show that the cause of the universe must be Mind, and that this Mind must be conscious and act with purpose. These arguments in themselves, even if we admitted them to be valid, would merely lead to a conclusion so barren of practical results as to be just as compatible with the denial as it is with the assertion of the only doctrine that the theist is really concerned to insist on. That such is the case, indeed, has been shown in a previous chapter. We will therefore deal with them now in as few words

as possible, and then pass on to questions of more crucial importance.

Firstly, then, as to the argument that Mind must be the animating principle of the universe,—an argument which still reappears in every new theological treatise,—it is enough to say that whatever value it may have possessed once, it possesses controversially not the smallest value now, for the plain reason that no thinker disputes it. Theism and science do, indeed, differ in that one of them maintains that this Mind is transcendental, whilst the other maintains that it is immanent; but if the difference went no further than this it would have no practical consequences.

The first real difference between the theist and his scientific opponent arises out of the question of whether the Supreme Mind is only active, or whether it is conscious and purposive also. Monistic science maintains that by an elaborate process of evolution it becomes conscious and purposive locally at a number of temporary centres, just as the cosmic nebulae evolve themselves into suns and systems; but, the monist continues, there is no more reason for supposing that the Universal Mind or Substance possesses consciousness or purpose in its totality than there is for supposing that the nebula out of which any system has been evolved possessed as a nebula the characteristics of a particular star. To this contention modern theism answers that the process of evolution is no doubt a fact; but evolution is merely a mechanism, which could no more elicit

Is there any proof that the Supreme Mind possesses consciousness and purpose?

consciousness and purpose out of a Mind which did not itself possess them than a pump could raise water from a well which had no water at the bottom of it. The mind, therefore, which is the cause of evolution, must be a conscious, purposive God.

Let us consider this argument a little more in detail. It is based on the facts of mind as we know them from a study of our own minds, and on the assumption that what is true as to our own minds must be true as to mind generally. Now the primary facts of our own minds, so this argument runs, are, firstly, consciousness of self, which differentiates mind from all other phenomena; and, secondly, a consciousness of activity, in which purpose is necessarily implied. To act with purpose is first to conceive an end, and then to do such and such things with the definite view to achieving it. We know, moreover, that when, from a series of connected actions, we systematically elicit some desirable and intelligible results, we have acted with purpose ourselves; and when we see other men acting so as to produce results which are similar, we naturally and rightly infer that they are acting with purpose also. Accordingly, what we know from ourselves to be true of our own minds, and what we know from experience to be true of the minds of our fellow-men, must, so the theist proceeds, according to all the laws of evidence, be true of the mind in which ours and theirs originated. Our minds being conscious, the originating mind must be conscious. Our minds being purposive, the

originating mind must be purposive ; firstly, because without purpose there can be no mental action at all ; and, secondly, because the processes of nature so work together towards intelligible ends, that mental action with a purpose is the only cause that will account for them.

Defect in the theistic argument as to consciousness and purpose in the Supreme Mind.

Such, in its essence, is the argument by which the theistic apologist of to-day endeavours to prove from the observed facts of existence that the cause of all these facts is a purposive and conscious Being. And to this argument what does the monist answer? Had the argument been urged on him a hundred years ago, he would have found himself unable, even if he did not accept it as conclusive, to deny that it possessed a considerable measure of force. To-day his position is different. He asserts to-day that it possesses no force whatever, and he does so for the following reasons :—

The theistic argument, as the reader will have seen for himself, derives its whole force from an assumption, once universal, that mind and conscience are co-extensive ; that the presence of consciousness establishes a sharp line by which mind is for ever divided from all non-conscious phenomena ; and that anything which is admittedly true of mental activity which is conscious is necessarily true of mental activity as a whole. This assumption science has now shown to be fallacious. It has shown us that conscious activity, instead of comprising mental activity as a whole, forms, in all probability, an exceedingly small part

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All consciousness, as we know it, rises out of the unconscious.

of it. It has shown that between the conscious and the unconscious there is no sharp line to be drawn; and that conscious mind, instead of being, as the theist asserts, capable of originating in conscious mind only, has its proximate origin invariably in mind that is quite unconscious.

Of this last fact the most obvious example is the baby, which, unconscious at first, develops consciousness gradually, by stages which science has now carefully noted. Another example, closely allied to this, is to be found in those intricate and surprising facts of heredity on which, in another connection, we dwelt in the last chapter. The inherited thoughts of the child are transmitted to it from a conscious parent, but they pass in the process of transmission through a long period of unconsciousness. Again, in the case of the human mind in its maturity, just as one part of its development has consisted in the rise of certain thoughts and activities from the unconscious sphere into the conscious, so does another part consist in the opposite process, of sending many of them to the sphere of unconsciousness back again. We are indeed learning to realise, with ever-increasing clearness, that, like an iceberg which floats with most of its bulk submerged, the human mind, from its first day to its last, has more of itself below the level of consciousness than ever appears above it. These facts are so well established that even theological writers have of late years been constrained into a grudging acknowledgment of their

truth; and in the following words, which are taken from a most orthodox Roman Catholic apologist, everything is conceded on which we need insist here. "That reason," he says, "can work on ideas, combining them, separating them, and inferring from them, without any direct conscious attention being paid either to the ideas themselves, or to the fact that the intellect is in operation, is confirmed by experience."¹ Now to admit this is not, indeed, to admit that the monist's deduction of everything from unconscious mind is true; but it is to admit that the deduction is not in itself unreasonable, and it is totally to destroy the foundation of the argument which the theist opposes to it. If the proximate origin of consciousness in our own minds is our own minds when they are unconscious; and if the latter, as we know is the case, are no less active than the former, there is nothing to show that the ultimate origin of both may not be mind which is in a state of unconsciousness also.

Many seemingly purposive actions are obviously unconscious.

And these considerations, drawn from our extended knowledge of mind, if they dispose of the theist's argument that the Supreme Mind must be conscious, equally dispose of his argument that the Supreme Mind must be purposive. For just as we have seen that the action of the mind in general need by no means imply the presence of any consciousness, so do we see that these activities in particular which exhibit externally every sign of purpose, continually take place when all purpose is

¹ *Dublin Review*, Oct. 1891, p. 293.

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The appearance of conscious purpose no sign of its reality.

absent. If we take, as the sign of purpose, the co-operation of innumerable acts in the production of an end which, to conscious beings, seems reasonable, what acts or processes possess the signs of purpose more signally than those which take place when the fœtus is slowly maturing in the womb—the processes in the fœtus itself, and those in the body of its mother? And yet both are alike unconscious. The mother is performing the most intricate functions of maternity—functions far more intricate than any she will ever perform afterwards; yet she has not the remotest idea of what it is she is doing. The fœtus has no idea that it is doing anything at all. The theist no doubt will reply that processes like these are due to the conscious immortal mind, which is present in every part of the body; but this immortal mind, of whatever processes it may be conscious, is at all events not conscious of these: and this reply of the theist's is merely another illustration of the very fact he is seeking to deny—that acts which, in external character, are precisely the same as those which the mind, when it is conscious of them, invariably associates with purpose, are performed by the same mind, with even greater precision, when it is totally unconscious that it is performing any act at all. Thus, since the argument of the theist, as to purpose in the Supreme Mind, admittedly rests on what we know as to the mind of man, we see, by the very reasoning to which he himself invites us, that it is impossible from the appearance of

purpose in any of the processes of the universe to infer that any purpose exists in the Mind by which the universe is actuated.

Both the arguments of the theist, then, fall alike to the ground. Purpose and consciousness, as we ourselves know them, afford no basis for a proof that the Supreme Mind possesses either. It is, however, equally true, on the other hand, that just as the theist cannot prove that the Supreme Mind does possess them, so his opponent cannot prove that it does not. And here we see what the whole of this preliminary argument with regard to the consciousness and purpose of God comes to. It comes to nothing. It proves nothing, and it disproves nothing: and even if it proved the utmost that the theist desires to prove, it proves nothing of what he is specially concerned to assert.

The theist desires to prove that the Supreme Mind possesses consciousness and purpose merely as a step towards proving that they are of a very specific kind—that the consciousness is the consciousness of a Being who is infinitely wise and holy; whose purposes are in accordance with his holiness; whose execution of them is in accordance with his wisdom; and that amongst his purposes the welfare of the human race is pre-eminent. These are the essential propositions which the theist has to prove. These are the essential propositions which his scientific opponent questions. With regard to the general problem of whether or no this Being has consciousness and purpose of

No philosophic proof that the Supreme Mind is either conscious or purposive.

some sort, we may begin by giving the theist the full benefit of the doubt. We may assume that a Supreme Mind, conscious and purposive, is a probability; and all that we have to ask is, whether the observed facts of the universe compel, invite, or even allow us to believe that this Mind or God is possessed of those moral and intellectual perfections, and that definite purpose as to man, without which, for the theist, he is not a God at all. We shall find that the facts of the universe, so far as science can ascertain them, not only do not prove the existence of such a God as this, but are also, when considered in their completeness, utterly incompatible with it.

Let us begin, then, with the most general of the propositions which the theist puts forward—a proposition which forms a kind of connecting link between theism as an academic theory, and theism as a practical religion. This is the proposition that the most general view of the universe—its magnitude, its majesty, and its order—is enough in itself to show, or afford us a strong presumption that the Power by which this universe has been made, and is at every moment sustained, must be a Power who is infinitely wise, and who is guiding the stupendous whole towards an end sublime as the means which he is visibly employing to produce it. This is precisely the argument which so strongly appealed to Kant, and which he expressed in his celebrated sentence about the awe with which the starry heavens inspired him. Now a similar awe is

doubtless producible in most minds. It is true, also, that out of a mere imaginative emotion this awe develops readily into ideas of a divine purpose. But the question here is not whether the starry heavens inspire us with this awe when we allow them to appeal to our imagination, but whether, when we examine them systematically, and the conditions under which they exist, we find in them any warrant for the beliefs which the awe suggests.

The moral aspect of the cosmos a purely fanciful idea.

Here we come upon another example of how arguments, which once appealed powerfully to the mind of everybody, have, with changed conditions of knowledge, completely lost their force. The fact of the universe which was mainly instrumental in producing a feeling of awe in the minds of Kant and his contemporaries was the fact of its universal order — the prevalence of unbroken law. The enormous worlds which wheel through the depths of space were seen to accomplish their courses with an absolute and enduring exactitude; and this exactitude carried to the observer's mind a suggestion so vivid as to be almost a mental vision of a vast omnipotent will, never sleeping or wavering, guiding them onwards for ever by its own conscious act. The same suggestion, as a part of the poetry of thought, is carried to the mind by the same spectacle now; but we shall find, if we regard it as a basis for any serious reasoning, that it belongs essentially to a pre-scientific age. It belongs to an age which had realised the spectacular unity of the cosmos, but had very imperfectly realised the nature

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The order exhibited by the universe no proof of conscious or purposive wisdom.

of its mechanical unity ; and which, moreover, had never grasped the fact that the forces, in virtue of which material things move, such as energy, attraction, repulsion, and chemical affinity, are as much a part of the material things themselves, and as much amenable to scientific experiment, as extension, or shape, or mass, or softness, or hardness, or visibility. Under conditions of thought such as these, matter was naturally looked upon as something that would not move at all without some external stimulus, and would certainly not move regularly without some external guidance. The stimulus and guidance, being conceived of as external, were naturally attributed to a conscious force and will ; and the infinite scope of the one, and the infinite steadfastness of the other, challenging, as they did, a comparison with the feeble power of man, made man regard the uniformities of the cosmic process as a constant intellectual and a constant moral wonder. The deeper knowledge of facts which we possess to-day has not merely modified this view, but inverted it. When we consider the movements of the starry heavens to-day, instead of feeling it to be wonderful that these are absolutely regular, we should feel it to be wonderful if they were ever anything else. We realise that the stars are not bodies which, unless they were made to move uniformly, would be floating in space motionless, or moving across it in random courses. We realise that they are bodies which, unless they moved uniformly, would not be bodies at all, and would exist neither in movement nor in

rest. We realise that order, instead of being the marvel of the universe, is the indispensable condition of its existence—that it is a physical platitude, not a divine paradox. In a word, we realise that the spectacle of the starry heavens affords the intellect no better grounds for believing that God has created the universe for some sublime end, and exhibits his perfect wisdom in the means he has devised for attaining it, than is afforded us by any one of the most homely facts of experience—the orderly swinging of a pendulum, the orderly boiling of a kettle, or the orderly death of a child when it tumbles out of the nursery window.

The order exhibited by the universe no proof of conscious or purposive wisdom.

It is therefore impossible, under existing conditions of thought, to found any presumption as to the wisdom or the purpose of God on the character of the universe as a whole. If the theist is to prove with regard to them anything specific at all, he must start at once with the question of God's dealings with our own planet. Here the theist's conclusions are all defined beforehand. We have only to compare them with the observed facts of the case, and ask if the latter support the former or are compatible with them.

CHAPTER IX

SENTIENT LIFE AND ETHICAL THEISM

God and the
evolution of
life.

WITH regard, then, to the earth, the theist starts with declaring that God's purpose in creating it was the welfare of the sentient beings that inhabit it. No one of these beings, however humble, is indifferent to him; but the object of his special and of his supreme love is man. Now, in order that God may love these beings, it is obvious that he must first produce them; and, before considering the manner in which his love for them is displayed, we will consider the character of the means by which his production of them was accomplished.

It was formerly supposed that they were produced by isolated creative acts; but we now know that they are the results of one orderly process of evolution. The theist of to-day admits this as fully as anybody; but he hastens on to point out that organic evolution is a process which, instead of precluding the idea of divine purpose, implies it at every step, and could not take place without it. Now that any divine purpose is implied in evolution necessarily is, as we have seen already, a wholly

erroneous supposition ; but the theists are right in saying that evolution does not preclude it, and if they assume, as they do, that the conscious purpose of God is the living law and principle to which organic evolution is due, they will be perfectly right in contending—indeed they are bound to contend—that organic evolution, directly leading up, as it does, to man, the pearl of creation, the masterpiece of the divine mind, must manifest more fully than any other process of nature God's infinite wisdom, his unerring skill and sagacity ; just as man himself is the supreme manifestation of his love.

But when we come to examine this process of evolution in detail, what do we see? If we do not embarrass ourselves by regarding it as the work of an intelligent Being, who has deliberately set himself to produce a definite result, we shall see in it simply a process, singularly interesting, which incorporates in the system of nature phenomena which had seemed to be external to it. But if we are invited to judge of it as a process representing the procedure of a Being whose character is to be tried by any known intellectual standard, and who is doing his best to produce beings who shall live and be the objects of his love, our opinion of the process of evolution undergoes a singular change. Though we still recognise certain features in it which suggest kindly intentions, what will principally strike us in it—and indeed we may say astound us—is firstly its cynical cruelty, and secondly its mad stupidity. The theist of course will be eager

Do the facts of the evolution of life show either wisdom or love in the Supreme Mind?

to claim our attention for the adaptation of each organism to its environment which this process secures. We are willing to grant him everything that he is able here to point out to us; but we answer the argument which he draws from the facts of adaptation just as we answered the argument which he drew from the fact of order. If organisms are to live at all, a certain adaptation to their environment is not marvellous, but inevitable. The wonder is not its presence. The wonder would have been its absence. We presume the adaptation. We enquire how God achieved it. And what we find is this:—That God has achieved the production of these living things and their adaptations by a process as little suggestive of skill or even of sanity as the shooting of a man with a rifle would be suggestive of accurate marksmanship, who, daily firing at random a thousand shots at the sea, should twice in his life make a hole in the same bathing-machine. For at every stage of the evolutionary process, God—since the theist compels us to speak thus—succeeds in his divine attempt to produce the result he is aiming at, only by making a thousand, a hundred thousand, or a million attempts, successive or simultaneous, of which all but one are failures.

This difficulty is recognised by the theists themselves. Thus Father Driscoll says the process of organic evolution seems to be constantly supplying us with examples of “frustrated purpose.”¹ The

¹ *Christian Philosophy of God*, pp. 248, 249.

only example of this which he cites himself is the fact that, in Tennyson's phrase, "out of fifty seeds," nature actually "brings but one to bear." But what of that? says Father Driscoll. We may safely assume that God has more purposes than one; and that out of every fifty turnip-seeds he has only evolved one with a purpose that has any connection with the production of turnips at all. The forty-nine are doubtless put by him to some totally different use, although it is a use which it passes our wit to conjecture. Arguments of this kind, however, have two fatal defects. In the first place, since they can justify God's wisdom in his device of means, only by supposing ends of which nature can tell us nothing, they are altogether abandoning the original claim of the theist, to be able to infer God's wisdom from the observable facts of nature; and in the second place this example of the wasted seeds of vegetables gives no adequate picture of the real difficulty which confronts us. In order to understand this, let us take another example, which, as even Father Driscoll will admit, is much more to the point. Instead of the waste that is involved in the production of turnips, let us take the waste that is involved in the production of men.

The proximate origin of man is the physiological process of conception. This process of conception is necessarily, according to the theist, the very sacrament of God's creation, and must exhibit his skill and resource in the very highest degree; for by its means there springs into being a something so

precious in God's eyes that centuries of theists have expressed their sense of its preciousness in the doctrine passionately assented to, that God died for its salvation. Let us then consider what the process of conception is. As we have seen already, the process of conception consists in the coalescence of the ovum which exists in the body of the woman with the spermatozoon which proceeds from the body of the man. What can be holier, from the theist's point of view, than the male life-bearer which penetrates the female cell, depositing there the seed whose growth will be like the Kingdom of Heaven? Nothing can be more holy; and hence many Christian casuists, solemnly ignorant of the actual process of nature, have based their condemnation of attempts to check conception on the ground that they involve the waste of this precious and sacramental principle. It is now, however, known that God is by no means equally careful. On the contrary, every time a woman conceives a child, God, in order to secure that the act of conception shall take place, blindly and recklessly throws away enough of these holy things—enough spermatozoa—enough potential souls, to populate the whole city of London, or the whole kingdom of Scotland, if only each spermatozoon could meet with an appropriate ovum. He burns down the house in order to roast the pig.

What sort of answer can the theist make to this? He may say, if he likes, that the spermatozoa seemingly wasted perhaps find their way to

the moon, and develop into lunar men. But this is mere fancy. It has nothing to do with fact. The final emergence of man, as the outcome of organic evolution, is declared by the theist to be evidence that evolution is directed by purpose, because man seems to our reason to be a result obviously reasonable. The argument is essentially an appeal to our knowledge and common sense. If, then, the fact of the spermatozoon's duly finding its ovum, and developing into a human being, affords any evidence of God's success in adapting his means to his ends, the fact that for every spermatozoon which develops into a human being several millions do not, but find their way to the gutter, is evidence that his means as a rule are wanton and miserable failures. It is evidence that he is not only a stupid God, but is also a morally reckless God, thus to play ducks and drakes with his own most precious materials; and if we do but follow his process a little farther, and, from a consideration of the means which he employs to produce living creatures, turn to a consideration of the manner in which he deals with them when produced, we shall find ourselves confronted with evidence more damaging still. We shall find him, in most cases, not only failing to achieve the result which, according to the theist, was the supreme result purposed by him, but actually producing results of a precisely different character—results which, according to the theist, must be abhorrent to his entire nature.

The facts I refer to are so notorious that a word

or two will be sufficient to indicate them. They are summed up in the statement that the process of organic evolution depends on, involves, and is produced by, a sacrifice of the individual to the type. The men and the animals whose exquisite adaptation to their circumstances fills the mind of the theist with such wonder at the divine skill, are merely the siftings of an infinitely greater number whose adaptation to circumstances are so much the reverse of exquisite that they only come into life to suffer the pangs of death from cold, from starvation, or from the hostility of their exquisite brethren.

Here again the facts of the case are admitted by thinkers of all schools—by the apologists of theism themselves no less than by men of science. As Father Driscoll truly observes with regard to them, “authenticated facts cannot be denied.” Now, if God is, as the theist maintains he is, a benevolent God, and if his supreme purpose is to produce living creatures who are to be the objects of his love and whose life he is to make happy, even the theists themselves admit that his production of innumerable creatures which he leaves to die in misery because he has himself denied them the constitution which alone could make happiness possible, may reasonably seem to us incompatible, at first sight, with the absolute love and goodness or with the absolute skill which we ascribe to him.

The theists maintain, however, that the objection is superficial only. These lives, they say, seemingly wasted, are not wasted in reality. Their imperfec-

tions are the means by which God, in his supreme wisdom, has slowly produced that orderly rise of existence which has for its end man, the express image of his Maker, and the rise of man himself from a lower stage to a higher ; and although amongst men there is the same apparent waste, in races and individuals called into life by God with the sole apparent purpose of showing that they are unfit to live, the same explanation in this case is as complete and as illuminating as in the other. The science of social evolution comes to us as the handmaid of theology ; it shows us that the whole of this seeming waste and tragedy works together to produce the increasing good of man, to make him holier, nobler, more worthy of the God who created him ; "and so," say these complacent gentlemen, "the goodness of God is vindicated ; what seemed to be the defeats of his love turn out to be its signal victories, and everything once more falls into its proper order."

The sole argument which to-day is advanced by the apologists of theism with regard to the goodness of God as evinced in the social evolution of man, consists in this appropriation, this theologising, of what science tells us with regard to the production of higher and ever higher types and species by means of the constant elimination of unfit and inferior individuals. Thus a Roman Catholic writer has appropriated to the service of his God the following words of the German scientist Moleschott : "In this sublime creation which we daily witness,

Fruitless attempts to apologise for the sacrifice of the unfit.

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Ethical theism implies that the object of God's love is the individual, not the species to the exclusion of the individual.

nothing is suffered to decay or perish. Everywhere air, plants, men, and beasts unite to purify, develop, renovate, and ennoble one another; so that the individual is sacrificed to the species, and death is only the condition of immortality for the whole circle of life."

A more extraordinary example of self-deception and of missing the point of a question than that which is afforded by this argument in the mouth of a theist it would be very difficult to imagine, for it is an argument which the theist invests with such plausibility as it possesses only by a complete surrender of what he really desires to establish. When he sets out with telling us that the purpose of God in creation is most surely and intimately revealed to us in the production of sentient creatures, he is thinking of the lives of sentient, of conscious individuals. He is thinking, for example, not of sparrows as a species, but of each separate little bird, when he says that not one of them falls without its Maker's knowledge; and it is still more evident that of man he is thinking in the same way. The whole meaning, the essence, of the theist's doctrine of God is his doctrine of God's love for the individual human soul. Christ did not die, according to the Christian's idea of his death, in order to preserve the peculiarities of the Teutonic race, or the Celtic, or to save the soul of any corporate body. The Church, no doubt, is spoken of as the divine Bride; but the Church is nothing if not composed of individuals; and, except as related to the life and

conduct of the individual, God's love is nothing also, as every theist knows.

Where, then, is the relevance in their appropriation of the words just quoted from Moleschott, and their endless reiteration of the meaning which these words convey? What Moleschott says, and what evolutionary science says, is that the individual, as though personally worthless, is sacrificed to the development of the species. What the theists desire to prove is—and if they cannot prove this they prove nothing—that the species is developed and improved by God solely as a means of securing the happiness and the salvation of the individual.

The scientific view which our modern apologists appropriate is not even analogous to their own. It is a monstrous and horrible inversion of it. How does the fact that the weak, the vicious, and the criminal transmit their tendencies to their descendants with such effect and certainty that the latter, if left to themselves, die of their own unfitness, justify God in having made them unfit at all? If the unfit are thrust into the world, it may be well that they should be thrust out of it, and the process of thrusting them out may be admirable exercise for the fit; but to the unfit themselves, who never asked to be born, the God who created them is either a dolt or a monster, so far as we judge of him by the light which the process of evolution throws on him.

Theistic sentimentalists will here no doubt interpose that the bitterness of the struggle for existence is now a thing of the past, and we are entering on the

The sacrifice of the individual to the species is directly opposed to the theory of ethical theism.

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No future improvement in human conditions can be an apology for past evils and miseries.

period of the struggle for the existence of others, when the true goodness of God will at last be manifested in his works. To this we may answer in passing, that if the struggle for the existence of others is the struggle for the existence of those who are socially not fit to exist, the practical misery in the world will be greater than it is to-day. But let us waive this objection altogether. Let us grant that, by a struggle for the existence of the idle, the weak-willed, and the incapable, we may presently turn the earth into a scene of millennial beatitude, we shall not have advanced a step towards the vindication of God's goodness. Whatever may be God's future, there will still remain his past. If the lives whom in the future he is to bless are to be witnesses to his divine goodness, the lives whom in the past he has blighted will be still crying to him out of the ground; and, since the theist maintains that he is the same yesterday, to-day, and for ever, the hand which is red with millions of years of murder will never cease to incarnadine all the seas of eternity.

There is, however, a point to be considered which we have hitherto left on one side. If only we assume that in addition to the facts of life which a scientific examination of the processes of nature reveals to us, there are other facts of another life, of which nature reveals nothing—a life in which the wrongs of the present life may be righted—we have not, indeed, provided ourselves with a means of proving that God is good;—for if we are not convinced of his goodness by his dealings with us in

this world, we are not forced to expect that we shall be convinced of it by his dealings with us in another;—but we have, at all events, rendered a vindication of his goodness imaginable. This is true; but the theist forgets one thing, namely, that this assumption which refers to a future life, and the different manner in which God will deal with his creatures, when the natural order of things shall have given place to a supernatural, is not a conclusion drawn from the observed facts of nature. On the contrary, it is a doctrine imported from a totally different source, for the special purpose of changing the character which these facts present to us.

This the theist, as a rule, never can be brought to see. He confuses together two positions which are not identical, but opposite. Starting with the assumption, which throughout the present argument we grant him, that God is a conscious Being, who acts with deliberate purpose, the proposition which he enunciates and offers to defend is this—that we are able to infer from a study of the facts of the universe, that the purposes of God are supremely just and holy, and the means which he employs to achieve them are the perfection of wise contrivance. But the theist is all the while keeping at the back of his mind an assumed knowledge of the very thing he professes to prove, and whilst pretending to argue from the facts of nature to God, he is surreptitiously arguing from God to the facts of nature. He is acting like a schoolboy who, pretending to translate from Thucydides, is really reading from a

Compensation in another life a possible, but not a scientific hypothesis.

“crib” which he hides in the shadow of his desk ; or like a clairvoyante who professes to find some object blindfold, when one of her eyes is peeping from under the lifted bandage. If we are to deal with this question before us in any reasonable way, if we are honestly to enquire whether it is demonstrable, from observable facts of the universe, that God possesses the character which it is the essence of theism to ascribe to him, we must previously purge our minds of all beliefs about the matter which have their origin elsewhere than in these facts themselves. We must divest ourselves of all foregone conclusions, of all question-begging reverences, and look the facts of the universe steadily in the face.

If theists will but do this, what they will see will astonish them. They will see that if there is anything at the back of this vast process, with a consciousness and a purpose in any way resembling our own—a Being who knows what he wants and is doing his best to get it—he is, instead of a holy and all-wise God, a scatter-brained, semi-powerful, semi-impotent monster. They will recognise as clearly as they ever did the old familiar facts which seemed to them evidences of God’s wisdom, love, and goodness ; but they will find that these facts, when taken in connection with the others, only supply us with a standard in the nature of this Being himself by which most of his acts are exhibited to us as those of a criminal madman. If he had been blind, he had not had sin ; but if we

maintain that he can see, then his sin remains. Habitually a bungler as he is, and callous when not actively cruel, we are forced to regard him, when he seems to exhibit benevolence, as not divinely benevolent, but merely weak and capricious, like a boy who fondles a kitten and the next moment sets a dog at it. And not only does his moral character fall from him bit by bit, but his dignity disappears also. The orderly processes of the stars and the larger phenomena of nature are suggestive of nothing so much as a wearisome Court ceremonial surrounding a king who is unable to understand or to break away from it; whilst the thunder and whirlwind, which have from time immemorial been accepted as special revelations of his awful power and majesty, suggest, if they suggest anything of a personal character at all, merely some black-guardly larrikin kicking his heels in the clouds, not perhaps bent on mischief, but indifferent to the fact that he is causing it.

But we need not attempt to fill in the picture further. The truth is, if we consider the universe as a whole, it fails to suggest a conscious and purposive God at all; and it fails to do so not because the processes of evolution as such preclude the idea that a God might have made use of them for a definite purpose, but because when we come to consider these processes in detail, and view them in the light of the only purposes they suggest, we find them to be such that a God who could deliberately have been guilty of them would

Impossible to treat seriously the only kind of Supreme Personality really suggested by Nature.

If Nature suggests a wise God at all, it is a God who has no special regard for man.

be a God too absurd, too monstrous, too mad to be credible.

Two ways only are open to us of avoiding this conclusion. In the first place, we may justify God's wisdom by assuming that he made the universe, with purposes which he has freely chosen, and is always achieving perfectly, but with regard to which we ourselves can be certain of one thing only—that man's welfare and justice to man form no appreciable part of them. It is needless to say that if we adopt this supposition we are not only taking our stand on a wild and arbitrary fancy, but are also removing God from the sphere of human affairs altogether—a proceeding which, we need hardly say, is to renounce theism, not to defend it. Our only other alternative is to leave the question of purpose in the background altogether, and retire on the position that whatever else may be doubtful, God's universe is everywhere a scene of unbroken order, which alone is sufficient to attest the wisdom of the Mind that caused it.

Now how little the fact of order really does in itself justify such an attitude of mind as that which has been just described we have seen in the previous chapter; but attempts are so persistently made to give currency to a contrary opinion, that we will pause to ask once more what they really come to. The nature of such attempts cannot be shown more clearly than it is in these two lines from one of the later poems of Tennyson—

God is law, say the wise, O Soul : and let us rejoice,
For if he thunder by law, the thunder is yet his voice.

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—
Foolish senti-
mentalities
with regard to
God and law.

Now this sounds very fine ; but what does it really mean? It means that the thunder is produced by fixed natural laws, which have been in operation ever since the universe began ; but that it is not on that account God's voice any the less ; for to produce things by fixed laws is one of the special characteristics of God, and the thunder would not be his voice were it produced in any other way. This may be true ; but more follows from it than Tennyson and his friends have supposed. For if the argument shows that the thunder is God's voice, it shows that every natural noise is quite as much his voice also. Now amongst these natural noises we must include those made by the animals, who, having no free-will which can interfere with God's purpose, express the operation of his law as directly as does the thunder itself. Thus the mewling of a cat, no less than the thunder, will, as Dean Burgon said of the syllables and the punctuation of the Bible, be "the very utterance of the Eternal himself ;" and we may invite the soul to rejoice when it hears the latter with just as much reason as we may when it hears the former. "For if God mews by law, the mewling is yet his voice." This is hardly information calculated to make a soul rejoice which was not rejoicing already for more satisfactory causes ; but it contains as much comfort as the devoutest sage in the world could extract from the

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Law is merely
another aspect
of monistic
determinism.

doctrine that God is unvarying law, which, when strictly interpreted, can mean nothing but this—that the only conceivable thing not divine would be a miracle.

Thus much, however, we have practically seen before. We are now in a position to realise something further. We have seen that, if we start with the primary supposition of the theist, and regard the Supreme Mind as a conscious and purposive Being, the mere presence of law and order in the universe will not prove him to be good or wise if other facts of the universe lead us to a different conclusion. We have seen, moreover, that the other facts of the universe, if we insist on attributing to them any moral or intellectual meaning, do lead us to a conclusion of a kind so grotesquely different, that the common sense of mankind must at once regard it as incredible; and now we are in a position to return to the facts of law and order, and realise something with regard to them which we had not realised before. If we realise that they are, as the ordinary mind feels them to be, incompatible with our ascription to God as the Supreme Mind of the monstrous character whose outline we have just been contemplating, we shall realise also that they are incompatible with the ascription to the Supreme Mind of anything that resembles a moral or intellectual character at all.

For this law and order, if we take them by themselves, as our sole indication of what the Supreme Mind is, are really nothing more than a living mani-

festation of the fact on which science bases its system, as opposed to the system of religion—namely, the fact that everything within the range of our experience, of our observation, and our inference is due to the operation of one single nexus of causes, and forms an integral part of one single vast machine. This is the doctrine of modern monistic science; and all quasi-theistic attempts to deify law and order have this doctrine for their foundation, and are little more than repetitions of it.

Monistic science does not, or at all events it need not, maintain, that the monistic doctrine is true in any absolute and transcendental sense. It logically leaves us free to imagine, if we care to do so, that the universe is ultimately due not to one cause but two, or to two distinct operations—if we prefer the hypothesis—of the same cause. Thus we have seen already, with regard to organic life, that we may, if we please, postulate for it some ultimate origin which is not comprised in the substance of inorganic matter. But such hypotheses are devoid of all practical import; for whether ultimately the universe is referable to one cause or to two, what monistic science asserts—and all that it asserts—is this—that so far as this cause or these causes have revealed themselves in the universe, they are joined so inextricably together as to be not two causes but one, and that the same unbroken order conditions the operations of both. In other words, whether the Supreme Mind be, in its essence, identical with the substance of this universe or no,

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the universe
scientifically
inseparable.

it is at all events identical with it, and absolutely inseparable from it, so far as this universe itself, and everything comprised in it, are concerned. Accordingly, since in this universe we are comprised ourselves, since our existence and all our experiences are derived from and bound up with it, we can have no knowledge of, or relation to the Supreme Mind whatever, except such as depends on the fact that it is bound up with the universe also. What, therefore, the Supreme Mind is for the universe, that it is for us, and it cannot be anything more; which is merely saying that for us it is the same thing as the universe, and that it cannot for us ever be anything else.

Whether, therefore, we please, under these conditions, to think of the Supreme Mind as being, in some transcendental sense, good or bad, wise or foolish, is a matter of complete indifference. The Supreme Mind can never be any of these things for us. To impute such attributes to it has no more serious meaning than the fanciful attribution by children of colours to Christian names. A Supreme Mind which is nothing but law and order is, as Dr. Martineau, one of the most thoughtful of modern theists, has admitted, a spectacle which, instead of exciting religious emotion, paralyses it. "Homage to an automatic universe," he says, "is no better than the worship of a mummy," and he adds that the human soul, placed in such a universe as this, would be a higher thing than the Supreme Mind that originated it. With the first of these proposi-

tions every reasonable man must agree; but the last is a curious indication of a failure in Dr. Martineau's reasoning. For the human soul, in a universe such as that which Dr. Martineau describes, would be just as much of an automaton as the Supreme Mind itself. Both would be equally wanting, and wanting for the same reason, in the essential qualities which religion requires in each.

Now the human life, or soul, as mental and physical science reveals it to us, we have already considered carefully; and we have seen that, so far as science can teach us anything, it does as a fact suffer from precisely these deficiencies. We have seen how it originates in a certain physical process, which identifies it with all other lives, however humble and transitory; how like them it matures, and like them comes to an end; and we have seen in still greater detail something more important than this—that there is in it no trace of any active or guiding principle which is not a link in the chain of unending causes, which at once sustains and fetters the entire constitution of the universe. In other words, we have seen, that so far as science can inform us, there is no room in the constitution of man for any principle of freedom—for any principle which has a source other than that from whence proceed the uniformities of the cosmic law and order. Could we only prove that such a principle of freedom existed, the case of the dualist, as opposed to that of the monist, would be gained. A soul that was free would presumably be a soul

Science identifies human life with the automatic processes of the universe.

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If the Supreme
Mind is free, it
is not free so
far as man has
any knowledge
of it.

that was immortal, for it would, from the very fact of its freedom, be independent of the dissoluble body. We should at once have established the existence of a kingdom that is not of this world. But this principle of freedom is the very thing which the facts of nature, however we interrogate them, deny. If we appeal to them as physical facts, they say, No such principle is known to us. If we appeal to them as mental facts, they say, No such principle is thinkable.

And what science reveals to us with regard to the fact of man, it reveals to us also with regard to the idea of God. The universe, as we know it, is a system of unbroken determinism; and if, in any sphere of its existence, the Supreme Mind is free, in its relations to this universe it has laid its freedom aside. We may, if we please, in order to escape from this conclusion, take refuge in attributing to it freedom, and a moral nature, as an hypothesis; but the moment we do this, and apply our hypothesis to the facts, monistic science revenges itself on us by investing the Supreme Mind with a character so monstrous that we subside on automatism and unconsciousness with moral as well as intellectual relief.

Thus, then, if we fix our minds on the great primary doctrines which are assumed by, and lie at the root of everything which we mean by religion—which lie at the root also of that entire moral and social civilisation of which we ourselves to-day are at once the products and the inheritors; and if we

compare them honestly with the actual facts of the universe, as science, by research and experiment, is day after day revealing them, we find that these doctrines, thus tested, are reduced to dreams and impossibilities — that in the universe of law and reason there is nowhere a place left for them. Must we therefore, as reasonable beings, give these doctrines up, with all the associations, judgments, principles, and hopes that depend on them?

If we have nothing to turn to but the arguments of the ordinary religious apologist, there can be no doubt that we must. These arguments base themselves, or at all events affect to base themselves, on the same ground as that which is occupied by science itself. They aim at discomfiting science by a use of its own weapons; and we have seen how hopeless this method of warfare is. Is there, then, no other method by which the desired result can be achieved and religion vindicated as worthy of the belief of reasonable men? There is one other resorted to by a certain number of thinkers, the general character of which has been briefly described already—that is to say, the method of the transcendentalist, the idealist, the metaphysician. We shall find it to be more suggestive, but at the same time no less futile, than that of the ordinary apologists whose failures we have been just considering. In the following chapter we will give our attention to this. And then, our consideration of these false methods being ended, I shall do my best

Ordinary
theistic argu-
ment is power-
less to deduce
an ethical God
from the uni-
verse.

Chapter 9

The apolo-
getics of tran-
scendentalism
still remain to
be considered.

to point out to the reader a third, less ambitious than either of the two others, but plainer and far more reasonable, by which, without questioning one of the affirmations or negations of science, we may justify ourselves in continuing to accept as the basis of our mental life, the doctrines which the metaphysician and the ordinary religious apologist rival each other in leaving as unbelievable and as completely discredited as they find them.

CHAPTER X

THE NEW APOLOGETICS OF IDEALISM

TRANSCENDENTALISM, Idealism, and Metaphysics are names for a kind of philosophy which the brilliant development of science during the past three generations has generally and completely discredited in the eyes of the world at large; nor would it have been worth while to consider what it has to say with regard to the relations between religion and scientific fact if it had not of late years exhibited a new vitality and come forth equipped with a knowledge which it never possessed before. This, however, is what it has done. In Germany, France, England, and America alike there has been, and is still in progress, a reaction in favour of metaphysics, the express object of which is to vindicate the doctrines of religion and reduce positive science to a position of subordinate authority. Moreover, the leaders of this movement in one respect differ widely from the most distinguished of their predecessors. The metaphysicians of the eighteenth century and the first half of the nineteenth, with whose names our

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 Modern metaphysicians recognise that science, as such, excludes religion.

ideas of metaphysics are most clearly associated, were not only ignorant of the problems which science presents to us to-day, but were obstinately incapable of understanding the methods of science at all. Thus Schelling and Hegel exhibited their transcendental wisdom by pouring contempt on the discoveries and methods of Newton, and gave the world a lesson as to what the value of their transcendentalism was by formulating a science of their own deduced from transcendental principles. By this means Schelling discovered that all matter is originally a liquid, and that the universe has been made out of this liquid by the operation of two potencies. One potency is weight, and the other potency is light. The metaphysicians or idealists of to-day, though their first ambition and endeavour is to strip science of the authority which it at present exercises over thought, unlike Schelling and Hegel, understand its methods thoroughly, and are thoroughly familiar with its more important conclusions. In attacking it, therefore, they are not attacking it blindly, and it is highly interesting to see what the nature of their attack is.

The key to their meaning will be found in the following fact. They, too, in accordance with what was said in the preceding chapter, recognise that the central doctrine, the central peculiarity of religion, as distinct from science and opposed to it, is the doctrine of free-will. They recognise that if science can prove freedom to be a delusion, though there may be a God of some sort, there can cer-

tainly be no religion. They recognise that if they, on the other hand, can prove free-will to be a fact, in the face of the uniformities which seem to prevail everywhere, the entire religious theory instantly becomes credible, and that, without going farther, the victory is already theirs. Their whole philosophy, then, resolves itself into an attempt to liberate the will, which science holds like a prisoner in its web of universal causation.

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 They attempt to reduce science to a mere doctrine of abstractions.

Such being the case, however, the metaphysicians or idealists of to-day set about their business in a very different manner from that which finds favour with the ordinary religious apologist. The idealists, instead of attacking the details of the scientific scheme, or endeavouring to read into it some non-scientific significance, admit at once that, alike in its details and as a whole, it is a logical, clearly demonstrable, and complete scheme of determinism.

In what way, then, do they attempt to accomplish their purpose? They attempt to accomplish it by showing, not that science is not absolutely true in a certain sense, but that the sense in which it is true is of a strictly limited kind. The truths of science, they say, are abstract truths, not concrete. The world in general, and men of science in particular, imagine them to be concrete. Everything depends on our ridding ourselves of this delusion. Now by calling the truths of science abstract the idealists mean this: that these truths deal with abstractions, as the problems and propositions of Euclid do, or as those of the political

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 The attempt to
 show that
 science deals
 with abstrac-
 tions only.

economist do when he reasons about the economic man. The economic man is a man supposed to have no motives other than those of acquiring or producing as much wealth as he can. No such man exists; but political economists, by reasoning about him, have reached most important truths. Similarly the lines and points which are the subjects of Euclid's reasoning, the former of which have only one dimension, and the latter of which have none, have obviously no existence in the world of concrete realities, and yet the manner in which Euclid reasons about them is the type of rigid demonstration. In the same way science reasons about the laws, the properties, and the matter of what we call the external universe; but it is reasoning about things which have no more concrete reality than lines which have no breadth, and points which have neither breadth nor length.

The ordinary reader will here ask in bewilderment, What, then, is real if the external universe is not? I can understand, he will say, Euclid's straight lines being abstract, and straight material things, such as rods or wires, being concrete, but I cannot understand these last being abstract also. To this highly pertinent objection the idealist would answer thus. He would begin by reminding the objector of the not very recondite truth to which his attention has been called in an earlier chapter here,—the truth, namely, that though matter seems a very familiar thing to us, we could none of us describe the most familiar material object except by describing

the manner in which it affected our own senses. A rose, for example, is not red apart from the constitution of our eyes, since we know that for a colour-blind man it need not be red at all. And what is true of its colour is true of all its qualities—its smell, its texture, and the rest. They would none of them be what we know them to be apart from ourselves who know them. Hence, say the new idealists, a rose as given us in experience is neither the *me* that perceives the rose, nor the *not me* that is perceived. It is the vital union of the two, namely, our own conscious experience of it.

Now in experience of this kind all our knowledge begins. It is the basis of all our reasoning. It is, as a recent exponent of the new Idealism has said, “the fundamental fact,” and this fact is concrete. It is what he calls “the duality in unity of subject and object.” We have a perception of a rose. The perception is in our consciousness only; but in order to account for this perception we resolve it into two elements—the external rose on the one hand, and the faculties that perceive it on the other. But the rose as we know it—the only rose we know—can have no external existence apart from ourselves; nor, again, can the faculties by which the rose is known. Both these—the perceived thing and the perceiving—are in ourselves, in our own experience, and cannot really be divorced from it. When, therefore, we think of them as independent, the independence with which we invest them is not real but ideal.

The alleged
“duality in
unity of sub-
ject and
object.”

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 How does the
 new Idealism
 differ from
 other philo-
 sophies?

It is an independence invented by ourselves for our own convenience. In other words, it is an abstraction. And thus, say the Idealists, matter, our solid external friend, is an abstraction which our minds form in order to rationalise their own experience.

Now this doctrine, as it stands, is, within certain limits, not peculiar to the new Idealism, or indeed to Idealism of any kind. It is simply the doctrine of all modern philosophers from the days of Berkeley and Hume downwards. It is simply a formulation of the following plain fact, which, though it took mankind a long time to find it out, yet when once found out is a truism—namely, the fact that the only things which we directly know, or can know, are the ideas, the subjective impressions, which arise in our own consciousness. The least philosophical of men can easily understand this by reflecting on the process of vision. Our heads may be compared to so many photographers' cameras, and all we are directly aware of when we see external objects is a series of images inside us, as the ground-glass of the focussing screen. All the rest of our knowledge is internal in the same way, and Professor Haeckel and Mr. Herbert Spencer would admit this as fully as the most rampant idealist in existence. How, then, does the doctrine of the new Idealists differ from that of Mr. Spencer, who has been selected by them as the type of everything that is philosophically false? It differs in the following way.

According to Mr. Spencer,—and, as we shall see presently, according to every reasonable thinker also,—although everything which we see directly is inside the camera of our consciousness, yet the images which shape themselves in the camera are produced by some reality external to ourselves which corresponds to them. What this external reality is in itself we have no means of knowing. We only know it by the manner in which we ourselves are affected by it; and consequently if we ceased to exist, this something, as now known to us, would cease to exist also; but in itself it would continue to exist whether we existed or no. Thus if we none of us had noses, eyes, or appetites, a perfectly cooked mutton chop would not be the brown, the rosy, the fragrant, the simmering thing we know, but it would still be something. It would not vanish with our own capabilities of appreciating it. This is what Mr. Spencer says; this is what all modern science says. It is this proposition which the new Idealists deny. They say that apart from ourselves there would be no mutton chop at all. The mutton chop, as we see it, smell it, and taste it, is “the fundamental fact.” The supposed mutton chop, independent of ourselves, is merely “an abstract or ideal construction deduced from the real.”

The reader may here be inclined to jump at the conclusion that the new Idealism is merely a repetition of the doctrine that nothing exists but the individual mind itself, and that other minds

It denies to the universe any existence apart from the conscious mind.

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 Theory of the
 new Idealists
 as to the essen-
 tial nature of
 man.

and the universe are merely the furniture of a dream. This is, however, not their meaning. Their meaning, which has been set forth with the most laborious precision in a work named *Naturalism and Agnosticism* by Professor Ward of Cambridge, is not that the external universe is a dream of the individual mind and comes to an end when the individual dies, but that it is a dream dreamed by the human race in common, and that it would come to an end only if all individuals died. The external universe, says Professor Ward, may in fact be compared to a corporation which is external to and outlives each individual member; but it would not continue to exist if it had no members left at all.

In order to understand this remarkable theory we must go a little further into the doctrines of the new Idealism. According to Professor Ward and his friends, man—the concrete man—resembles the merrythought of a chicken. He is a stem with two branches. One of these branches is the mind or the principle of reason; the other is a mechanism of unexampled complexity, which the mind employs as its instrument, and which, when we abstract and externalise it, assumes for us the aspect of matter. If we deal with either of these branches separately, we find ourselves in a world of necessary effects and causes. We have a mechanical determinism of atoms and energy in the one, and the psychological determinism of character and motive in the other. But although

we are able in thought to detach these two worlds from our living and concrete selves, and thus plunge ourselves at will into a region of pure necessity, we can detach them in thought only. Each in reality is always attached to, and could not exist apart from, the stem common to both; and this stem is a principle of pure freedom. Thus, though the mechanism of mind and the mechanism of matter have both of them an independent existence and a necessary action as abstractions, they have, as concrete things, no action and no existence at all. As concrete things they are parts of a free spirit, which makes use of their uniformities for its own freely chosen ends.

And now we come to the point that specially concerns us here. Though every individual man, or every individual spirit—for such is the term which Professor Ward prefers—is a free self-determining agent, and though the aims and actions of different spirits differ widely in consequence, their mental and material mechanisms, by means of which their ends are gained, are not only uniform in their operations, but are, in the case of each spirit, similar. Now it is the exact similarity between these systems of means, possessed by all spirits, that the process of abstraction presents to us in the form of an external world. For example, says Professor Ward, let us take the case of ten men looking at the sun. All that the experience of the ten men really gives us is ten separate images, of which each man perceives one, and this per-

The universe as a mental image of internal similarities in all minds.

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The universe
as a mental
image of in-
ternal similari-
ties in all
minds.

ceived image is inside him; but these images being all practically the same, and arising from similarities in the ten men's internal natures, out of these ten internal percepts they agree in forming a concept—that is to say, an abstract sun which is external to them, and which they represent for the sake of mental convenience as the common cause of their similar internal experiences. Or, considering the complexity of the universe, we may illustrate the matter more effectually by comparing the similarities of the internal mechanism of men to a number of Bibles used by a synod of theological disputants. Each man has his own. He reads it and reads no other; but as the words of each Bible are alike, the disputants all agree to represent the various copies, of which each reads his own separately, as a single big Bible, which they all of them read together.

Here, then, we have an accurate account of the process by which, according to the newest school of metaphysics, men come to have the idea of an external universe. And if their theory is true—if it is consistent both with facts and with itself—it will alter our conception of things by the simple process of inverting it. Instead of leaving the will enslaved by the determinism of the universe, it will present us with a universe which is dependent on the existence of a free spirit; and, so far as the universe is concerned, our moral freedom will be vindicated.

The only question to be considered—and it is

certainly not an unimportant one—is whether or no this philosophy coincides with facts in the first place, and whether or no it is consistent with itself in the second. It might be supposed from the manner in which it reduces the external universe to an abstraction, that to test this philosophy by facts would be a somewhat difficult enterprise. Such, however, is not the case. The new Idealism has this merit, at all events, that although its object is to alter our estimate of the character of the truths of science, it leaves them within their own limits as true and as important as ever. It looks on the truths of science as a man looks on the figures of his banker's book. The figures, as he knows, are not pounds and shillings, but he also knows that his estimate of the pounds and shillings at his disposal will not be a true estimate unless it corresponds with the figures. Accordingly, in dealing with the facts and principles of science, and testing their philosophy by its capacity for explaining them, the Idealist takes them as they stand—as the ordinary scientist gives them to us—without insisting, for the moment, on their own peculiar interpretation of them.

To this task of testing the new Idealism by applying it to the facts of science Professor Ward has devoted the larger part of his work, *Naturalism and Agnosticism*, to which I have referred already; and we cannot judge of the character of his philosophy better than by seeing how it thus fares at the hand of so accomplished an exponent as himself. To

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Means of testing the value of the new Idealism by facts.

follow him through the whole, or through the larger part of his argument, would be of course impossible here. It would also be quite unnecessary. Of the scientific or natural facts to which he applies his philosophy it will be enough to consider one particular class, which he himself regards as the most important—that is to say, the facts of organic evolution.

We must, he says, accept it as true that all living creatures, men and animals alike, have been gradually evolved from protoplasm; and ordinary science has presented to us the details of this process with perfect accuracy, like a living drama in dumb show. It has succeeded in doing this, but here its success ends. It is utterly incompetent to explain on its own principles why any one of the figures in this drama moves. For if science means anything at all as a complete philosophy of existence, it means, says Professor Ward, that everything, conscious life included, is the product of mechanical causes, and that the actions of living creatures, though accompanied by a sense of purpose, are really no more determined by this subjective phenomenon than the shape and the movements of the waves are, or the drifting of the rain or snow. Now if, says Professor Ward, we take the scientific philosophers at their word and endeavour, on this hypothesis, to account for the evolution of life, we discover at every step that the task is wholly impossible; and not only do we discover this for ourselves, but we realise further

that, though wholly unconscious of the fact, the scientific philosophers have found it to be impossible also. For in organic evolution, whatever else may be involved, the struggle for existence plays a principal part. And what, says Professor Ward, does the struggle for existence mean? It means a series of actions purposed with a definite end, not a series of movements produced blindly by mechanical antecedents. It means a series of actions produced by the will to live—actions which have for their purpose the securing of the means of life. This purpose, or the teleological factor, which the scientific philosophy sets out with rejecting, has to be postulated by the very men who reject it the moment they attempt to explain that central problem of existence for the sake of which alone the others are worth explaining.

If this inconsistency, so fatal to the whole scientific philosophy, is not sufficiently palpable when we examine evolution from within, we need, says Professor Ward, only examine it from without and every trace of doubt will be dissipated. The purpose or will to live, on which organic evolution depends, is shown to be a principle totally different from any that is operative in the mechanism of the inorganic environment, by the fact that the organism and the environment are essentially in a condition of antagonism. The organism is “anabolic,” the environment is “katabolic.” The latter, instead of having produced the former, is always endeavouring to destroy it. Indeed it is only through the

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 Antagonism
 between the
 organism and
 the environ-
 ment.

“hostility” of the environment, or else through “irreparable misfortune,” that the organism “is brought to a halt.”¹ It is therefore evident at a glance, says Professor Ward in conclusion, that these two hostile agencies cannot be one and the same agency. Scientific philosophy is, therefore, convicted, out of its own mouth, of an utter inability to explain on its own principles the very facts which it obtrudes on our notice as most urgently deserving explanation. Accordingly, says Professor Ward, since we see it is impossible to derive this necessary element of purpose from the universe of inorganic matter, our only alternative is to adopt the converse hypothesis and derive the universe of inorganic matter from purpose—or, in other words, from the free human spirit, which gives energy, movement, and substance to what otherwise would be a lifeless phantasm.

Here, then, we have before us a series of admitted scientific facts, and also a statement of the means by which the new Idealism would explain them. On the inability to explain them which the Idealists impute to the philosophy of science we need not dwell here. We have only to consider whether the new Idealism can do better; and we need not go further than Professor Ward’s own observations to realise that it not only does not explain them, but cannot even be made to coincide with them.

¹ *Naturalism and Agnosticism*, vol. i. p. 293. Professor Ward quotes these two last phrases from Professor Strasburger, but he quotes them to make them his own.

One of the principal facts on which Professor Ward relies to show that life and living purpose cannot be identical with or derived from the matter of its lifeless environment is, as we have just seen, the fact that the two are antagonistic. The organism struggles to live, and the environment struggles to kill it. Now out of this statement two questions arise. In the first place, if the environment be really itself lifeless, how can it possibly struggle to kill anything? It is perfectly plain that it cannot. To say that it can is nonsense. If, then, on the other hand, it is in a sense alive, owing to the presence of energy, no matter whence derived, what becomes of the contrast between its deadness and the life of the organism? To this question Professor Ward can have only one answer. He will say that if energy is life, the inorganic environment is living—this is, after all, merely a question of names: but such energy or life—which-ever we please to call it—is derived by the environment, just as is the purpose of the organism, not from its own nature, but from the properties of the human spirit, of which, in nature, it is an integral and internal part. And this answer, which is inevitable, leads us to the final difficulty. If organic matter and inorganic—these two antagonistic principles—are both parts of the inside of the same human spirit, or to speak less ambitiously, of one and the same man, then human beings, according to Professor Ward's philosophy, succeed in living only by constantly antagonising themselves.

Inconsistency
of the new
Idealism with
facts that are
admitted by
the Idealists.

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 Absurdities of
 the new
 Idealism when
 tested by facts.

This is about as absurd a conclusion as it is possible for a man to reach; and its absurdity is illustrated yet further by a curious admission of Professor Ward's, which he makes by the way without perceiving its consequences. The organism dies—or, as he puts it, is "brought to a halt"—in most cases by the hostility of the environment; but in many cases the "halt" is produced by what he calls "irreparable misfortune," or, as most people would call it, by "a fatal accident." But what, according to his philosophy, can an accident possibly be? Even if we admit that the free spirit is made up of two antagonistic principles, and that one of them, which is the reality of which matter is the mere abstract image, invariably winds up with stinging the other to death, how can we explain by means of this hypothesis a death which results from the collision of two excursion trains? Are the trains, the splintered carriages, and the dead man's battered skull merely a "duality in unity of subject and object," which up to the moment of his death existed in the dead man's spirit?

Considerations like these would themselves be enough to show that the new Idealism is nothing but a fantastic, though ingenious and learned, dream; but in order to put this matter in a stronger light yet, let us give our attention to the following further facts, both equally involved in the process of organic evolution.

In the first place, in order that the evolution may take place at all, the living things must be not

only purposive but reproductive. Now if matter be simply an abstraction, it is obvious that the organisms themselves, in so far as they are material, must be no less unreal than their environment. What, then, in this case is the nature of the reproductive process? How do two spirits unite so as to produce a third? What is the difference between the male spirit and the female? And what are the realities of which conception and the development of the embryo are abstractions? To answer these questions in terms of a philosophy which maintains that male and female have no sexual differences other than "ideal constructions" deduced from some internal reality would pass the wit of Professor Ward himself. But a further fact awaits us even more intractable than this. The fact I refer to is the connection of the purpose by which each organism is animated with its brain.

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Idealism and
sexual repro-
duction.

When dealing with free-will under certain of its physical aspects I discussed the manner in which modern theistic thinkers have endeavoured to reconcile the action of free-will on the brain with what science both assumes and demonstrates to be the general uniformities of matter. One of the thinkers to whose arguments I then alluded was Professor Ward himself. Professor Ward belongs to the party who admits that no principle of freedom can be brought to bear on the brain without some distinct violation of the law of the conservation of energy, or the law of the conservation of momentum; but who held at the same time that the kind of

violation which would be involved would not affect their validity to any appreciable degree. Now this contention, as Professor Ward explains, is based on the fact that the universe is of incalculable extent, and science can know only a very limited part of it. The will might thus be continually generating energy which would, through the brain, be transmitted to the physical world; but these additions would be lost in the spaces beyond our knowledge, as additions of water to an estuary would be lost in the open sea, and the level of the estuary would remain what it was before. Now if we suppose that the external universe is a reality, this reasoning is acute, and might quite conceivably be sound. But if we maintain that the universe has no existence at all except as an abstract image of something in our own individual spirits, what is the reality corresponding to their outer cosmic immensities? Are all the stars and systems far beyond the Milky Way, whose light, in order to reach us, must have set out on its journey before any of us were born or thought of, merely an ideal construction deduced from some obscure realities having their seat in a spirit which did not exist yesterday, and may be battered out of existence to-morrow by the wheel of a locomotive engine?

The idea is postposterous. It is not merely abstruse and difficult to grasp clearly, but when it is grasped it cannot be accommodated to facts. Let me illustrate this by one example more, taken not from the facts of evolution, but from the general

nature of our knowledge of external things. We have seen already how Professor Ward explains this by the case of the ten men who are all of them looking at the sun. What they really are aware of, he says, is ten similar suns inside them, and the single sun outside is an abstract image of these. But let us suppose that nine of the ten internal suns suddenly disappeared in nine out of the ten spectators, and seemed to be swallowed up and lost in the body of the tenth. How could we explain this event in terms of Professor Ward's philosophy? Professor Ward would say that such a supposition is meaningless; and with regard to the sun he would be perfectly right in saying so. But let us suppose that the external object in question is not the sun but a mutton chop, and that, while all the ten men are staring at it, one of them gets up and eats it. If the sun is merely a concept abstracted from ten percepts, the chop is merely a concept abstracted from ten percepts likewise. If, then, externally it has no real existence, how can this concept be appropriated by one of the men in such a way as to rob the nine other men of their percepts? And what is the process that takes place in the spirit of the tenth man when, by appropriating the general concept, he destroys his own percept also? And how does the condition of the man who accomplishes this general ruin by eating the chop differ from the condition of the others, who have nothing to make up for their loss but the mortification of seeing him eat it? If philosophers, instead of

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Ten Idealists
and one
mutton chop.

confining themselves to the solemn altitudes of existence and walking

Like death and morning on the silver horns,

would condescend to take their examples from the common events of life, they would avoid many of the mistakes which expose them to the just ridicule of the vulgar.

And now let me deal with an answer which any of our new Idealists who may have read the foregoing criticism will have on his lip already. They will say that such criticisms are criticisms habitual amongst the vulgar, to whom philosophy seems ridiculous mainly because they do not understand it; and they will doubtless refer to “the coxcomb who vanquishes Berkeley with a grin.” Let us accordingly, in anticipation of this retort, give our attention for a moment to the philosophy of Berkeley himself. This, no doubt, may seem to the careless student to be not less absurd than that of the new Idealists. There was, however, an element in it which rendered the charge of absurdity groundless; and not only is this element wanting in the new Idealism, but the new Idealism is peculiar, and peculiar only in having cast this saving element out. In order to see better what the new Idealism is, let us compare it for a moment with Berkeley’s philosophy, and not with his alone; but let us also compare it once more with the philosophy of modern science.

All three start from the same beginning. We have no immediate knowledge of anything but our

own ideas or experiences. How are we to explain these—by what kind of hypothesis? Now all philosophers agree in taking one step here which none of them can justify by any philosophical theory. They agree that the philosopher himself is not the sum-total of the universe. Whatever else may or may not exist, there are at all events other beings of a nature similar to his own. He is a spirit, as Professor Ward says, in a world of brother spirits. The primary question, then, for all the three philosophers arises out of the fact that the ideas and experiences of these various spirits depend on causes which are not only beyond their own control, but which, in the case of all of them, operate in the same way. Ten men are conscious, at the same time, of an experience which they picture to themselves as a seeing of the same sun. What is the cause of this experience? Ordinary thought says that the cause is the sun itself—a blazing, shining, monstrous incandescent ball. This account of the matter all the philosophers correct by showing that the qualities which we think of as existing in the sun itself are only names for the effects which are produced in our own consciousness. When these qualities are gone, then, what remains of the sun? Modern scientific philosophy says that what remains is unknowable. We only know that there is an external something of some sort which, looked at in one light, is matter, and looked at in another light is mind, but which, in whatever light we look at it, is not part of our-

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Berkeley
asserted pre-
cisely what the
new Idealists
deny.

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Berkeley's
theory largely
coincident
with Mr. Her-
bert Spencer's.

selves. It existed in its integrity before we and our minds were; it would exist in its integrity still if they vanished like the clouds of yesterday. Berkeley maintains that the sun, apart from the minds perceiving it, cannot with accuracy be spoken of as a thing at all. It is merely a name for a mysterious act of God, who produces by his living and absolutely uniform agency all those effects which the vulgar ascribe to matter. Thus, though Berkeley postulates a mysterious act of God where the modern scientist postulates an unknowable external substance, the idea which arises in our minds when we say that we see the sun is, on Berkeley's theory no less than that of the scientist, due to a cause external to the percipient mind itself. Indeed, though Berkeley's theory seems a paradox to the crude materialism of the coxcomb, it is not only not a paradox to the modern scientific philosophy,—the philosophy, for example, of Mr. Herbert Spencer,—but it is practically one and the same thing with it. Apart from the question of God's ethical character—and this has nothing to do with the point which is here at issue—it is, for the purposes of science, a point of complete indifference, so long as the operation of the external cause is uniform, whether we call it God, or Substance, or the Supreme Mind, or the Unknowable. But this doctrine of the externality of the causes of our own perceptions—the doctrine which, in Berkeley's opinion, alone made his philosophy reasonable—is precisely the doctrine which

the new Idealists reject. They maintain that these causes are not in a mind external to us, but are part and parcel of our own percipient minds themselves. They add, indeed, as we have seen, that these causes do not exist in the percipient mind of any one individual only, but are external to each individual in the sense that they are shared by others. This kind of externality, however, of which Professor Ward makes much, is, on his own showing, nothing more than an accident. We have only to suppose the occurrence of a second deluge, which drowned everybody with the exception of Robinson Crusoe, and the whole universe then would be in Robinson Crusoe's stomach. The Milky Way for a time would exist on his precarious sufferance, but as soon as he died of the hostility of one part of himself to the other part, there would, we need hardly say, be a general end of all things.

The doctrine which leads to absurd consequences such as this—the denial that our experiences originate in any causes external to ourselves—is the doctrine which separates the new Idealists from Berkeley, and it is the only fundamental doctrine which separates them from Mr. Herbert Spencer. It is their only absurdity, and it is also their only peculiarity. What they do with the doctrine of Berkeley and Mr. Spencer alike is to look at it carefully as though it were a glass of beer, and then seek to improve it by turning it upside down. We need not wonder that, in consequence, the

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Why the new Idealists have adopted their absurd position, which is the very opposite of Berkeley's.

whole of the beer is spilt. The ordinary man, indeed, will find some difficulty in conceiving how a theory so utterly grotesque as the Idealism of Professor Ward and his allies can have possibly been accepted as true by intelligent and highly educated men. But however mad we may think it, the madness has a definite method in it. When the new Idealists invert the doctrine of Berkeley they do not do so out of any random perversity. They do so in obedience to the dictates of an absolutely sound judgment. They do so because they detect in the theological Idealism of Berkeley precisely the same elements of mechanical and external determinism which they see to be inherent in the current philosophy of science, and from which, in betaking themselves to metaphysics, it has been their desire to escape. They recognise that any system which represents the ideas and experiences of the individual as originated and conditioned by any cause or causes external to himself, independent of him, and unalterable by his own efforts, is necessarily a system of determinism, let it take what form it will; and they have consequently, in their search for a philosophical scheme of freedom, been driven to the experiment of transferring the originating and conditioning causes from the region of external mind or divine activity altogether, and boxing them safely up in the mind of the individual himself.

When we look at the theory thus, the genesis of it is intelligible enough. We have, however, not

done with it yet. There is one more point of view from which it still remains for us to consider it, and this, for practical purposes, is the most important of all. Let us waive for the moment everything that can be urged against it in detail. Let us take it as its authors give it to us. Let us assume for the moment that it is true. We shall find that, even on this assumption, for the purpose of its authors it is useless. We shall find that, instead of affording us any escape from necessity into freedom, it merely gives us the old determinism back again, and leaves the difficulty of freedom precisely where it was before.

We have seen that the new Idealism can account for the uniformities of the universe, and for the fact that the universe to all of us seems the same, only on the theory that every free spirit, in addition to the idiosyncrasies which it possesses in virtue of its freedom, possesses an element also which is not free but determined, and which, in every spirit, is determined in the same way. The external universe is the Brocken phantom of this; and the movements of the phantom are for all spirits the same, only because there are similar movements in each of the spirits themselves. Now, however free we may suppose these spirits in some respects, we cannot suppose, nor does the new Idealism suggest, that their freedom had anything to do with their possession of this curious element. They did not invent it; they did not choose it for themselves. If it was not imposed on them by any external necessity, it was at

The Idealistic theory, even if consistent, would be useless as a defence of religion.

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all events imposed on them by the necessities of their own nature. Such being the case, then, nothing, so far as freedom is concerned, is gained by removing this element of uniformity and determinism from the region outside the mind and locating it in the mind itself. Instead of freeing the will from the tyrant that reigned in the street, this is merely to open the door to him and admit him into the interior of the house. Professor Ward observes very truly that it "avails nothing (for those who defend the doctrine of moral responsibility) to say that mind is not actually itself matter in motion if it is bound up with such motion as the whirring and the shadow of its wheels is bound up with the motion of a machine." His own philosophy has precisely the same defect. Instead of binding up mind with the necessarily-moving machine of matter, it binds up the necessarily-moving machine of matter with mind; and whether the man is bound to the wheel or the wheel bound to the man, so long as the wheel moves uniformly the man moves uniformly too. In order, then, to find in their system any room for freedom, the new Idealists would have to prove two things. They would have firstly to prove that it is not, as a matter of theory, impossible for the will to control the element in the mind which is determined; and they would secondly have to prove that, as a matter of fact, the element which is determined does not control the will.

Now the first of these two contentions Professor Ward, as we have seen already, does seek to estab-

lish by a very elaborate argument; but whether this argument is a sound argument or an unsound it is no sounder on the hypothesis that the universe is inside the mind than it is on the hypothesis of ordinary science that it is outside.

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heredity.

We need not, however, discuss its value here, because the utmost it could prove, as we saw in a former chapter, is not that freedom exists, but merely that it is not an impossibility. What concerns us here are difficulties of another kind altogether. These have their origin not in the general principles of science, which may or may not be inconsistent with free-will as a theory, but in the detailed facts of science, which are inconsistent with free-will as a reality. These facts we have dealt with at length already. They are the facts which show how completely the character and faculty of the individual are determined before his birth by the characters and the faculties of his ancestors, and how after his birth they are dependent on the brain and the organism generally. To these facts Professor Ward does not even allude. He has apparently never realised them. If he had he would have seen that for the new Idealists they are just as inconsistent with freedom as they are for Mr. Herbert Spencer himself. He would have seen that, in being transferred from the outside world to the inside, not one of them has been lost, or has in any way changed its significance, and that the determinism from which he has been running away has followed him like his own shadow. He would have

seen that the determinism of will, considered under its objective aspect, depends on the fact that the will in question is connected with a system of uniformities not of its own making, and that so long as the will is in any way conditioned by them, it is a matter of complete indifference, so far as the question of freedom is concerned, whether the mind comprehends this system in itself, or is merely comprehended by it as a minute fragment of its totality.

But our examination of the new Idealism is not ended even yet. I have spoken of the determinism of the will as considered under its objective aspect, for this is the only aspect under which Professor Ward considers it. He sees it only as a material and a physical difficulty. He forgets altogether that subjectively it is a psychological difficulty also. He is so preoccupied with the determinism of molecules that he forgets the determinism of motive. Even were the brain as subservient to the will as the ship is to the steersman, the will itself would in its turn still be subservient to desire; desire would still be the outcome of circumstance and congenital character; and congenital character, whether determined by heredity or not, would at all events not be determined by any choice of the individual.

How impossible it is to escape from such facts as these is unconsciously shown by Professor Ward himself in the only portion of his work in which he deals with motive in detail. As we saw just now, one of the fundamental argu-

ments used by Professor Ward in constructing his Idealistic philosophy is drawn from the fact of motive being essential to organic evolution. Let us, accordingly, consult his own words on the subject. "Turning," he says, "to the facts of mind, a sound method will lead us to the first daylight of our own conscious experience, not to the glimmering twilight of primitive sentience and instinct. Looking broadly," he continues, "at the facts of mind from this standpoint, we come upon two principles that lead us straight to the two teleological factors of evolution. One of them is the principle of self-conservation. The other is the principle of subjection or hedonic selection." What, then, let us ask, do these two principles mean? They mean that living things, human beings included, are motived in the first place by the desire to keep themselves alive; and in the second place, when they can keep themselves alive in more ways than one, are motived by the desire to do so in the way which is the most pleasurable. On these two desires, says Professor Ward, the entire process of organic evolution depends. Now is it possible to conceive any two classes of action more rigorously determined, more obviously wanting in freedom, than those which result from the motives here in question? The living creatures had no voice in deciding that a will to live should be theirs, or that life should depend on food, or that one kind of food should be pleasanter to their palates than another. All this was decided for them by some power outside themselves; and

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their needs and desires being given, their actions follow like clockwork. Let Professor Ward only continue carefully this train of thought which he has himself so emphatically indicated, till from actions of the lowliest kind it brings him to actions of the loftiest ; and at every stage he will find there is the same subjective determinism—the same dependence of desire on circumstances that are independent of the will, the same dependence of will and of action on desire, and the same impossibility of any conscious action at all unless there are motives which at once determine and cause it.

Thus out of the very heart of the philosophy which aims at the vindication of freedom the negation of freedom emerges, obstinate and clear as ever. Having seen that if we knock at all the doors of the universe—of the universe of fact as ordinary thought understands it, there emerges at each the same inexorable necessity,—the monster of Frankenstein, as Professor Ward calls it,—Professor Ward and his friends have undertaken an ascent into cloudland, hoping to discover there what they are unable to discover below. But though they have ingeniously shaken themselves free of as much solid fact as was possible, the whole of their real difficulties have ascended into the clouds along with them, and in their desperate attempt to escape from the determinism of science they merely give us another and a final proof that every attempt to escape from it by analysis or by observation is fruitless.

And now we have at length brought our negative criticism to an end. We have seen that if we consider the universe apart from the organic life contained in it, it is, according to the admission of thinkers of every school, a system of absolute monism, so far as observation reveals it to us. We have also seen that, in spite of every argument by which religious and metaphysical apologists endeavour to escape from the conclusion, organic life is a system of absolute monism likewise, and that if in the cosmic process there has been any interference at any time, it was, to quote an expression of Professor Ward's, an interference that "took place before the process began, not during it." We have seen that, consequently, the entire intellectual scheme of religion—the doctrines of immortality, of freedom, and a God who is, in his relation to ourselves, separable from this process—is not only a system which is unsupported by any single scientific fact, but is also a system for which amongst the facts of science it is utterly impossible for the intellect to find a place. In other words, that entire conception of existence which alone for the mass of mankind has invested life with value is in absolute opposition to that general system of the universe, the accuracy of which is every day re-attested by every fresh addition made to our positive knowledge. How is it possible to reconcile these two opposites? To this question we will now proceed to address ourselves, and I shall hope to show the reader that there is a very simple method—different from

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 criticism of
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 getics of
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that of the religious apologist or the idle metaphysical dreamer—by which, without any surrender of science or common sense, the desired result may be accomplished to the satisfaction of reasonable men.

CHAPTER XI

THE PRACTICAL SYNTHESIS OF CONTRADICTORIES

LET us make no mistake as to the nature of the problem before us. Let us draw no veil over its hard, inflexible features. We have to deal with certain specific beliefs on the one hand ; we have to deal with denials of them, no less specific, on the other ; and our business is to discover a means by which we may reasonably assent to both. We are not indeed concerned to emulate the feat of Hegel and show that contradictories, such as freedom and not freedom, are identical, but we are concerned to show that, as perfectly reasonable beings, we may, in certain cases, believe them to be not incompatible, though our reason can give us no hint as to how the two may be reconciled.

How are we practically to reconcile contradictories ?

The reader will, perhaps, think that this is a feat even harder than that to which Hegel's transcendental genius addressed itself. To accept contradictory propositions as not in reality incompatible is, he will say, a procedure which can seem reasonable to a madman only. The opinion is a natural one. It is indeed so natural, that if the reader entertains

it, there is but one way of disabusing him of it, and this is showing him that it is a procedure followed by all of us, and that, owing to the constitution of our own minds and the universe, unless we followed it no coherent thought would be possible. I do not mean that a simultaneous assent to contradictories in most minds, or in many, takes place as a conscious process. I mean that it takes place by implication as a strictly logical consequence of thoughts and judgments which lie at the bottom of all our knowledge, and that a logical analysis sufficiently deep and careful is all that is wanted to bring it up to the surface. That such is the case I shall now illustrate by examples, and the reader will divine beforehand the general nature of the conclusion to which the order of facts which we are about to consider will lead us. Let us begin, then, with considering something which the whole civilised world regarded for ages as the most important and most assured piece of knowledge possessed by it—namely, the knowledge of God as the Christian religion reveals it to us.

We need not inquire here whether this knowledge is true or false. All that concerns us is the mind's power of grasping it. Let us take it, then, in its simplest form—that in which a Christian mother is accustomed to impart it to her child. The child is taught that God is its divine father, who loves all that is good in it, and hates all that is evil, and who has, moreover, created by his own paternal omnipotence not only the child itself,

but the whole universe likewise. Now this teaching, whether it be truth or falsehood, presents to the child no internal difficulties whatsoever. On the contrary, the child assents to it with a quickness and a clearness that are proverbial. The absolute perfection, the absolute power, and the absolute love of God unite in its mind to form a most vivid and coherent picture. This is a fact familiar to every nurse and mother in Christendom. We also know, by the general evidence of history, that as Christian children have grown into Christian men none of the vividness and coherency of this picture have been lost. For seventeen hundred years, throughout the civilised world, the great masses of mankind—sinners and saints alike—have not only felt no difficulty in assenting to the Christian doctrine of God, but would have found considerable difficulty in assenting to any other.

And yet it will require but little reflection to show us that this doctrine of God, which men not only grasp with such readiness, but also assimilate so completely that it affects the whole complexion of their lives, is a structure of contradictions which the mind cannot possibly reconcile. Some of these indeed lie so near to the surface that even the child has a glimpse of them sometimes, as of fish swimming in a pond. Thus many an Augustine of the nursery has perplexed its elders by observing that God might, if he had only chosen, have made Eve's nature such that she would not have eaten the apple. In most cases, however, when difficulties

The theist's idea of God is a synthesis of contradictories.

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The theist's
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is a synthesis
of contra-
dictories.

such as these suggest themselves the child forgets them, and the adult puts them aside, apparently under the happy impression that theological problems are like letters, which will answer themselves, if only neglected long enough. But if from the fragmentary reflections of the ordinary child or man we turn to the systematic analysis of the theologian and the Christian philosopher, we shall see the contradictions inherent in the Christian conception of God displayed in a manner so clear that they can elude the apprehension of nobody.

Taking, then, the conception of God, which appears to the child so simple, and considering its implied contents as the analysis of the theologian reveals them to us, we find that God is, according to this conception, a Being who is not only all-good and all-powerful, but who is also absolutely self-sufficient. Without end, without limit, without beginning, he always has been, is, and always will be, at every moment perfect, and perfect in the same degree. Hence, as theologians say, there can be in him no "potency" or "acquisition," for these are marks of imperfection. How can he who has all things ever be in need of anything? How can he who is perfect become what he is already? Such, then, being the nature which we implicitly attribute to God in the seemingly simple act of believing him to be all-good and all-powerful, we will merely glance in passing at what is already sufficiently evident—namely, the contradiction in thought which such a belief involves between a

goodness which nothing can resist and evil which is continually resisting it, and turn our attention to others which are even more fundamental.

The theist's idea of God is a synthesis of contradictions.

According to Christian belief, as we know, God made the universe. The universe is not a part of him or an aspect of him. He had existed from all eternity before the universe was. He might reduce it to nothingness to-morrow and still be himself unchanged. Why then, we are driven to ask, did God create it at all? Theologians tell us that he did so for his own glory; and this, or some kindred answer, is the only answer that is possible. But if God is always the same, yesterday, to-day, and for ever, if he needs nothing because he always possesses all things, and if he existed in perfection before he created anything, how did creation ever become necessary to his glory, since his glory had been complete without it for the whole preceding eternity? Again, as St. Augustine asks, how can this being who is for ever at rest, be also for ever keeping created things in motion? And how can he, whose calm is for ever unbroken, have called into life beings who fill him with sorrow and with anger? St. Augustine saw that questions such as these are unanswerable. He saw also that they arise inevitably out of any logically complete conception of the divine nature; and one of the most remarkable passages in his writings is an eloquent address to the Deity, which is neither more nor less than a long Magnificat of contradictions. And what St. Augustine saw and acknowledged so clearly, all

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The monist's idea of substance involves as many contradictions as the theist's idea of God.

Christian theologians see and acknowledge likewise. They see that the conception of God which a child can grasp so easily implies a coexistence of qualities in the same nature which cannot be reconciled by any other means than a frank admission that this nature is incomprehensible.

Now to this statement the monist has a very natural answer. He will admit that it is true; but what, he will ask, is proved by it? Not that knowledge involves a contradiction in thought, but merely that false knowledge does. The contradictions involved in the conception of the theist's God shows that, as an hypothesis, the theistic God is false, and shows that the scientific hypothesis—namely, that of the universal substance, which is the only alternative to that of the theistic God—must be true. But now let us turn from God to this scientific alternative; let us examine the latter as we have just now examined the former, and we shall see that there are embedded in the very grain and structure of science, difficulties which for the intellect are of precisely the same order as those which we have seen to be embedded in the very grain and structure of religion.

The monist, we need not repeat, in the place of the theist's God, puts as the cause of the universe the substance of the universe itself. Now, of what, so far as our senses and our power of reasoning can tell us, does this substance consist? To this question science gives two different answers. One answer is that it consists of material bodies sepa-

rated from each other by intervals of absolutely empty space. The other is that it consists of material bodies that are ponderable separated from each other by ether—a material body that is not ponderable. The latter is the answer which is generally accepted to-day. We will, however, consider both. We shall find that in reality they are both equally unthinkable.

Contradictions involved in the idea of atoms and empty space.

The unthinkable character of the first hardly requires proof. If, as science declares to be the case, no mind can exist, and no cause can exist, without or apart from some precise material equivalent, and if the material bodies of which the universe is composed are separated from one another by space which is absolutely empty, how does one body act upon another at a distance? Space, we must remember, is, according to this hypothesis, absolutely devoid of all material content. It would not be space otherwise. Accordingly, being devoid of matter, it must be also devoid of mind, and of any cause or efficiency whatsoever. How then can it be the medium of such forces as attraction and repulsion? How can it be the medium of any forces at all? To maintain that it can be so is to do one or other of two things. It is to supplement the principles of science by the postulates of a constant miracle, or to admit that these principles involve a contradiction in thought which we may feel ourselves bound to accept, but which we are absolutely unable to explain.

The truth of this criticism is to-day admitted

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Does the discovery of ether do away with the difficulties of empty space?

by everybody, and men of science feel that they can afford to be generous in endorsing it because the discoveries of the last forty or fifty years have supplied them with a means of escape from the particular difficulty which it indicates. It has now been demonstrated in a variety of conclusive ways that the intervals by which ponderable bodies, whether worlds or atoms, are separated are not empty, but filled with a continuous ether. This ether, which is specifically known to us as the medium of light, radiant heat, electricity, attraction, and repulsion, constitutes the physical medium by which bodies at a distance affect one another; and the discovery of it has thrown new light on the nature of matter generally, and on the whole cosmic process of which the existing universe is the result. Ether is, according to contemporary physical theory, the primary substance out of which the entire cosmos has arisen. Atoms, molecules, and the various cosmic nebulæ have all been formed out of its substance. In it, and by means of it, all these exist and move, and it, too, is for ever in them—filling the intervals between the atoms of the most solid bodies, as a cook's jelly fills the intervals between the grapes or other fruit embedded in it. In short, the discovery of ether, and the elevation of it from an hypothesis to a verified fact, has, in the opinion of our modern and scientific monists, made the outlines, at all events, of the monistic theory complete. It has, as Professor Haeckel says in a highly characteristic

passage, "fully established the reality of space and time. When we have got rid," he proceeds, "of the idea of empty space, there remains, as the infinite space-filling medium, matter in its two forms of ether and mass. So also we have a time-filling event in the eternal movement which reveals itself in the evolution of substance—in the *perpetuum mobile* of the universe."

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ception of
ether.

Now it cannot be denied that the old contradiction in thought inhering in a philosophy which denies the existence of anything not having a physical side to it and a precise physical equivalent, and which yet is empirically confronted with what it takes to be empty space, is effectually disposed of by the modern discovery of ether. We shall find, however, that though the old contradiction is gone, a new contradiction has silently taken the place of it; and in order to see this, it is unnecessary for us to go further than the writings of Professor Haeckel himself, by whom the fact would seem to be utterly unsuspected.

Our knowledge of the nature of ether is still, he says, very imperfect; there is, however, reason to infer that it possesses the consistency of an "elastic, light, and extremely attenuated jelly," that this jelly is in a constant state of movement, of "vibration, strain, or condensation," and that "in its reciprocal action with mass-movements it is the ultimate cause of all phenomena." But whatever may turn out to be its precise nature in these respects, we are, says Professor Haeckel, certain at least of one

thing, and this is that the ether is not atomic. For, he says, if we take the only other alternative, and suppose it to consist of minute homogeneous particles, "it must further be supposed that there is something else between them—either empty space or a third and completely unknown medium, the question as to the nature of which brings us back to the original difficulty, and so on *ad infinitum*." Such then being the general nature of ether, how are we to suppose that it and ponderable matter are related? We are to suppose—for such is the latest scientific theory—that amongst the characteristics of ether is a "tendency to concentration or condensation," which produces infinitesimal centres at which the etheric substance is thickened. "These minute thickenings of the substance which pervades everything correspond," says Professor Haeckel, "to the atoms of the older theory," and out of these atoms in reciprocal action with the ether the entire universe, inorganic and organic, has evolved itself.

We need not pursue the details of the theory further. All that concerns us is the three following facts: firstly, that the ether is the ultimate cause of all things; secondly, that it is homogeneous and non-atomic; and thirdly, that it is capable of indefinite contraction and expansion. Let us deal with the question of contraction and expansion first.

If we say that ether can expand or contract indefinitely, we mean that any given cubic foot of

it may shrink to a cubic inch or swell out to a cubic mile. Now that such expansion and contraction should occur in the case of atomic bodies—that is to say, bodies which are discontinuous—is easily conceivable. Thought can follow the process. When the bodies expand, their particles are packed more loosely; when the bodies contract, the particles are packed more closely. The bodies suck up ether in the first case; it is squeezed out of them in the other.

How can a continuous body expand and contract?

But with the ether itself the case is essentially different. As Professor Haeckel most justly observes, if we are to regard the discovery of ether as freeing our minds from the nightmare of empty space and the unthinkable mystery of physical action at a distance, this ether must be absolutely continuous. Between no one part of it and any other must there be any intervals of nothingness. But if we admit it to be continuous, as we have probably every reason to do, we shall find that we have got rid of the mystery of physical action at a distance only to make room for a system of expansion and contraction which is for the intellect more mysterious still.

That such is the case we can very easily see. The ether, we say, is continuous and without separate particles. Thought can divide it into innumerable cubic feet, every one of which is different from those adjacent to it; and each of these cubic feet can be similarly subdivided in such a manner that we may figure it to ourselves as a

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box filled with a definite number of little etheric bricks. Now how can this block of ether, made up of these little bricks, be condensed or thickened? It can obviously be condensed or thickened in one way only; that is to say, by more little bricks of ether being packed into the area which already is completely occupied. Let us suppose that these new intruders are as numerous as the present occupants. In what way are the new intruders to be accommodated? Those which are already in possession touch each other on every side. From the very terms of our hypothesis there is no vacant space between them. It is obvious, therefore, that the new intruders can be accommodated only by two bricks being made to stand together in the same place. It is idle to say that each brick itself may contract. This is, to quote Haeckel's words once more, merely bringing us back to the original difficulty. We again subdivide each brick into a number of bricks still smaller; we repeat our question again, and again get the same answer. A cubic foot containing a million etheric bricks which have no space between them, and none within their own structure, can be thickened by the addition of another million of similar bricks, only on the condition that two particles of matter can be made to stand together in absolutely the same place. To suppose such an occurrence as this involves a contradiction in thought like that which is involved in the supposition of action through an absolute void; and if we imagine our cubic foot of ether

being expanded instead of thickened, another contradiction awaits us of a different, though cognate kind. In this case, instead of having two bricks standing together in the same place, we shall have them flying apart and leaving empty space between them; for if this does not happen, and if, as they fly apart, the space between them is filled up by other ether, our original cubic foot will have no doubt been dispersed, but neither it nor the ether round it will in any sense have expanded any more than a glass of water will if we stir it up in the jug out of which we have poured it. Thus, whilst the condensation of ether makes it necessary that two physical bodies shall occupy the same space, the expansion of ether makes it necessary that other spaces shall be continually left which are not occupied by any physical bodies at all. In the one case we are confronted by a contradiction in thought which is new. In the other we are confronted by one from which we flattered ourselves we had just escaped. Of course it may be said that difficulties and contradictions such as these, like the divisions we have been making of an absolutely homogeneous substance, exist in thought only, and have no counterpart in reality. This may be perfectly true, but the point I have been insisting on is not that the ether does not expand and contract in reality, but that if it does so, it does something which, although we know it to be actual, the laws of thought prevent us from representing as possible.

We have not, however, done with our examina-

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How can an absolutely simple body, like ether, resolve itself into a specific complexity?

tion of the etheric theory yet. We shall find that it involves—or perhaps it is truer to say that it exemplifies—another contradiction in thought of a kind more important still, a contradiction which inheres in the very nature of all monism, but which the etheric theory invests with conspicuous clearness.

Amongst the criticisms, many of them trivial, perverse, and entirely mistaken, which Professor Ward makes on the doctrine of Mr. Herbert Spencer, there is one which, though not original, is at all events profoundly true. Professor Ward points out the curious philosophical incompleteness of Mr. Spencer's procedure in offering us the "primitive nebulosity" out of which the universe has been evolved as being in any sense a philosophical explanation of it. If all things, Professor Ward argues, follow each other in regular order, every effect being the precise equivalent of its cause, the primitive nebulosity out of which the existing cosmos, man included, has been evolved must at the beginning of the process have been constituted in some specific way. An ideally perfect intelligence, looking at it before all worlds, would have been able to read in it every word in to-day's *Times*, would have seen in it every advertisement plastered on the London boardings, and would have heard in it every syllable of Professor Ward's own lectures. Had its constitution differed, no matter how minutely from what it was, the entire cosmos would now be different from what it

is. Mankind would be different, our individual characters would be different. Professor Ward would not be a philosopher, or he would be a philosopher of some unknown school. Why then was the primitive nebulosity constituted as it was, and not otherwise? Why was it constituted so as to produce London, the *Times* newspaper, Professor Ward, and Professor Ward's book; and not constituted so as to produce other towns, other newspapers, other professors, and other books instead? This Mr. Spencer's philosophy does not even attempt to tell us. We ask it why things are as they are, and its only answer is, by an elaborate process of reasoning, to show us that they are as they are, because they were as they were. This is no real answer to our question. It is a repetition of it in another language.

Now if this criticism is true as applied to those scientific theories which take us from the universe of to-day back to the cosmic vapour, it is still more obviously true as applied to those further theories which from the cosmic vapour carry us back to the ether. If science is unable to suggest how the cosmic vapour, which is matter already in a high state of development, came to have its atoms arranged in that elaborately specific way which was requisite in order that a specific universe should be evolved from it, much more is it unable to suggest how a similarly specific arrangement came to be possessed by the ether, to which, in the last resort, the primordial arrangement of the cosmic

How can an absolutely simple body, like ether, resolve itself into a specific complexity?

vapour must have been due. For whilst the cosmic vapour is a substance possessing a structure, and comprising apparently a variety of chemical elements, the ether, as we have seen, is structureless, homogeneous, continuous, the same always and everywhere. Why, then, if it tends to condense into ponderable matter at all, does it tend to condense in one place more than in any other? How do the atoms which result from its condensation acquire that variety of character to which their subsequent combinations are due? In a word, how does absolute simplicity resolve itself into specific complexity?

The scientific thinker will no doubt beg us to remember that matter is merely one aspect of mind; and will say that in terms of mind, though not in terms of ether, we can imagine an answer being given, though unable ourselves to give it. But if matter and mind are really two aspects of the same thing, to imagine such an answer as this is the very thing we cannot do. For an absolutely simple substance, conditioned only by itself, which is what the modern theory represents ether as being, must, if it corresponds to any mental fact at all, correspond to a mind which is absolutely simple and conditioned by itself only—that is to say, to a mind which is without motive; and it is just as impossible to conceive a mind in this condition taking the steps which result in the condensation of ether into atoms, as it is to imagine the ether taking these steps for itself. The etheric

theory, indeed, reproduces, in a most remarkable way, the precise difficulties which, as we have seen already, inhere in certain of the primary doctrines of Theology. Why the simple, homogeneous, continuous, infinite ether should take to condensing itself in certain particular places, or why it should take to condensing itself at all, is, at bottom, the same question as the question why God should have created the universe, when his existence had from eternity been absolutely perfect without it. The difficulties which inhere in the theistic conception of God, and those which inhere in the scientific conception of ether, are, for the mere intellect, practically one and the same. Only the thinnest film of terminology and association divides them.

Thus, whatever conception we may form of the nature and the origin of this universe, whose reality we all believe in, and of which we are ourselves a part, we find that a fact in which we are compelled to believe, contains, when we analyse it, an implication which we are unable to think. Logic brings us to a point at which it is itself destroyed. Until we submit our thoughts to a process of careful analysis, no conception is more easy to grasp than that of a universe consisting of atoms and empty space. We analyse this conception, and it is not thinkable any longer. To escape from our difficulty, we proceed to fill empty space with ether. The same contradiction emerges in a different form. Again, no proposition is assented to more readily

Ether and God, two expressions of the same difficulty.

than the proposition that the universe must have had a cause commensurate with its complexity and its magnitude. We postulate as its cause an all-perfect and omnipotent God. The more vividly we realise what the idea of perfection implies, the more incompatible with perfection does the act of creation appear to us. Dissatisfied with the hypothesis of God, we turn to the monistic substance, and the further we trace it back to its simple and still simpler elements, the more impossible does it seem to us that it should ever have evolved itself into anything.

Let me illustrate this immanence of the self-contradictory in the thinkable by certain further examples, which are all the more instructive because they are so familiar. Of no facts of experience is our knowledge more clear and manageable than is, within certain limits, our knowledge of time and space. And yet we have only to let loose by analysis the conceptions that are implied in either, and each swells into a mystery, in the presence of which thought is stupefied. Time is divided by an ever-moving point, the present, into two eternities—the past eternity and the future. Portions of the latter are continually being added to the former; but the one is not diminished, and the other is not increased. If we analyse our conception of space we are stupefied in a similar way. Infinity upsets our logic no less than eternity. If we build a hall, and finding it to be too large for our purposes, run a partition across the middle of it, the cubic content

of each of the two parts is necessarily half of the cubic content of the whole ; but if we imagine a partition, without top or bottom or ends, to be run across space in its totality, thus completely bisecting it, each of the halves, being on one side infinite still, will, in respect of its spatial content, be no less infinite than the two taken together. Each part equals the whole. The whole is no greater than the part. And these contradictions in thought which are thus involved in the infinite repeat themselves in the infinitesimal. Thought can no more come to an end of the process of subdividing a billiard-ball than it can to the process of multiplying the cubic miles of infinity. Thus, wherever we are, whatever we do, whatever we touch, taste, manipulate, or fix our thoughts upon, we stand between two infinities—between the infinitely great and the infinitely little ; and the one is as full, for the intellect, of paradoxes and contradictions as the other.

Professor Huxley has said, in words which are the delight of the religious apologist, that “ we live in a small bright oasis of knowledge, surrounded on all sides by a vast unexplored region of impenetrable mystery. From age to age,” he continues, “ the strenuous labour of successive generations wins a small strip from the desert, and pushes forward the boundary of knowledge,” but “ the known ” remains always finite, the “ unknown ” remains always infinite. Now it is perhaps not wonderful that this statement of Professor Huxley’s

The thinkable is an oasis in the middle of the unthinkable and contradictory.

should have seemed to our religious apologists to afford them a charming text by means of which to exhibit the difficulties of the religious position as being merely such as might arise in translating a language of which we had mastered only a few words or letters. This argument, however, though fair, is not very valuable controversially, for the man of science has as good a right to it as his opponent; and I have quoted the words of Professor Huxley here merely in order to contrast the respectable truism contained in them with a truth which some may confuse with it, but the essence of which is wholly different.

This is the truth that "our small, bright oasis of knowledge" is surrounded on all sides not only by the unexplored and the unknown, but also by the contradictory and the unthinkable; and it is a truth which is, in a very luminous way, illustrated by the behaviour of our intellect in its dealings with time and space. Let us consider either of these as ordinary thought conceives of it, and we shall see that it is comparable to two parallel rails, on which our thoughts, like a locomotive engine, can run in either direction smoothly for a considerable distance; but which, when in either direction a certain point is passed, cease to be parallel, and, diverging like the two sides of a triangle, make it impossible that the engine should travel on them any longer. And what is true with regard to our conceptions of time and space is ultimately true of all of our conceptions whatsoever.

We must, accordingly, if we would make our image complete, not content ourselves with the image of one pair of rails only which traverses our oasis of knowledge like one diameter of a circle. We must suppose that similar pairs of rails, like innumerable spokes of a wheel, pass through the centre from every point of the circumference, entering it from beyond on the one side and passing beyond it on the other; and that the engine of thought can, at will, travel backwards and forwards upon any of them. Let our thought then travel in any direction it will, and, starting from the centre of the area of intelligible knowledge, pass beyond the circumference at any point whatever, it will find itself confronted by contradictions of a similar kind. It will find that ideas and conceptions which within the magic circle cohere together like the strands of a twisted rope begin, as soon as the borders of the circle are passed, to unravel themselves and stretch away towards opposite sides of infinity.

But although the objects of knowledge which lie within the familiar circle of the thinkable comprise in their very essence this latent element of the contradictory, no one, with the exception of a few dreaming transcendentalists, doubts that these objects of knowledge, in a practical sense, are real. Nobody doubts the reality of time, as dealt with by Bradshaw, because his intellect refuses to grasp the idea of eternity. No one denies the practical reality of space, though nothing intervenes between

Our practical beliefs not invalidated because an unthinkable element is involved in them.

Chapter 11

A belief in contradictory not necessarily unreasonable.

the space, without which he could not live, and the boundless depths of infinity, in the presence of which he cannot think. Nobody, again, disbelieves in the reality of the universe, though the existence of it implies a cause, and every cause we can imagine is unthinkable as soon as we analyse it.

If, then, every synthesis which we make in picturing the world as real involves, when submitted to analysis, contradictions which cannot be reconciled, and if nevertheless our belief in the reality of the world continues, it is perfectly obvious that there can be no *à priori* reason why we should not believe in the reality of the religious synthesis, though the principle of freedom which it obliges us to assert appears to our intellect incompatible with the determinism which we are unable to deny.

There can be no *à priori* reason, I say, why we should not do this; but this is a very different thing from saying that there is any practical reason why we should do it. The utmost that the argument, which we have just been considering, can show us is, that for those who recognise the universe, living and lifeless, to be, as science reveals it to us, nothing but a vast machine, it is not necessarily absurd to believe that there is a principle of freedom which is connected with this machine and is intimately implicated in its workings, but for which, in its mechanism, our reason can find no place. To establish this, however, merely places us in the position of a man who, having been taught by his

grandmother that railway accidents are impossibilities, suddenly learns that at times they actually do occur. He thus discovers that he need not, under pain of proving himself an idiot, reject every account of such an accident as though it were an old wife's fable; but the freedom of belief thus gained by him gives him no more reason for supposing that an accident has occurred to any particular train than the knowledge that a duplicate of St. Pancras station might possibly be built on an island rock in the Hebrides gives him reason for supposing that such a structure actually exists there. Before we commit ourselves open-eyed, in the teeth of hostile evidence, to believing that an element of moral and spiritual freedom exists in the heart of this absolutely determined universe, we must satisfy ourselves that for thus believing there are reasons of the weightiest and most definite kind. How far such reasons exist we will consider in the following chapter.

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CHAPTER XII

THE PRACTICAL BASIS OF BELIEF

Reasons for supplementing our belief in science by other beliefs which contradict the first principles of science.

IF all the facts of the universe, as science and observation reveal them to us, unite in showing that the primary doctrines of religion—the doctrines of immortality, of the Theistic God, and of human and divine freedom—are superfluous as hypotheses, unsupported by evidence as assertions, and not to be reconciled with the nature of things as ideas, where, the reader will ask, can we hope to discover facts which will justify us in arriving at an absolutely contrary conclusion? What facts does science, when it has done its work, leave us?

The answer to this question is as follows. Although there are no observable facts, mental or physical, of which science does not take account, certain facts have aspects with regard to which it can tell us nothing. It can tell us, for example, why the sky and sea are brighter and bluer in one place than in another; but it cannot tell us why—it cannot even tell us whether—the sea-views from Naples are more beautiful than those from Margate. It can analyse and report on the structure of two

pâtés de foie gras—the one soft and pink in its crust, the other in a tin or *terrine* with a texture like that of soap; but it cannot teach the epicure which is the best to eat. It could give us an optical account of the eyes of any two women; of the condition of skin and blood which gave them their respective complexions, and of the racial antecedents to which they owed their respective characters; but science could tell us nothing as to which of these two ladies was calculated to inspire a man with the deepest and most romantic passion. It cannot tell us if love is better than passionate friendship; or if a placid freedom from either is not better than both. It can tell us, in fact, that such and such feelings and such and such appreciations exist, but it can tell us nothing with regard to the relative values of them.

Science can tell us nothing with regard to the subjective values of things.

And just as it is limited in its scope with regard to feelings and appreciations, so is it limited likewise with regard to certain beliefs. In the first place, there are beliefs the existence of which is recognised as a fact, and the origin of which is easy perhaps to explain, but with regard to the truth of which it can offer no opinion whatever. Such, for example, is the belief in the sanctity of human life. Secondly, there are beliefs, the truth of which it tests with the utmost rigour, but the practical influence of which wholly escapes its scrutiny; and of such beliefs as these, incomparably the most important are the beliefs in God, in immortality, and more particularly in moral freedom. In judging of such beliefs as

Men of science, as such, fail to see the limitations of science with regard to practical life.

these, the influence of which is co-extensive with life, we have to take into account not only their agreement or disagreement with the measurable facts of the universe, but also the effects which an acceptance of them has on human society, on moral and intellectual progress, and the quality of civilisation generally. This, however, men of science as a rule entirely fail to see. For them, in their strictly scientific capacity, a belief in the doctrines of religion has no practical effect, good or bad, beyond that of checking the spread of scientific truth, of cramping human activity by needless unmeaning restrictions, and enabling priests to obtain the control of education. They fail to see—and, as men of science, have no means of estimating—the moral, spiritual, and mental effects which an acceptance of these doctrines produces on the character of social life, and on human activity generally. Professor Haeckel, for example, says that monism will not touch what is really valuable in Christianity. It will only sweep away the supernatural element and the ascetic, and will leave the idea of goodness exactly as Christ gave it to us. It seems never to have occurred to Professor Haeckel that the Christian idea of goodness might itself be inseparably connected with doctrines which he proposes to discard, and that, were a belief in these doctrines destroyed, the idea of goodness might suffer dissolution along with them. If Professor Haeckel's science means anything at all, it means that human beings are merely the marionettes of the cosmic

process, and that they are no more responsible for their own goodness or badness than apples or pears for their texture, size, and flavour. Let him really apply this doctrine to moral phenomena of life, and ask himself how much meaning will be left in any of the Beatitudes. He will very soon see that his proposal to retain Christ's idea of goodness whilst denying Christ's doctrine of God, or the existence of moral freedom, is a proposal worthy of a child. He might as well propose to get rid of the law of gravitation, and imagine that, if this were done, the only practical consequence would be that his servants could carry his portmanteaus upstairs more easily.

In order, therefore, to realise what grounds we have for supposing that, in spite of their paradoxical character, the doctrines of religion may be true, we must do the very thing which the opponents of religion never do, except in a perfunctory, careless, and absolutely unscientific manner. We must form some estimate of what is the real part which a belief in the doctrines of religion plays in practical life; and we can form such an estimate most readily by adopting the method of Euclid, and considering what life would be like if these doctrines of religion were false, and completely banished, as such, from the consciousness of the human race.

Let us begin, then, with expunging the idea of freedom. Let us suppose ourselves to be all convinced that we all alike are automata, and that whatever we do or are at any given moment, it is impossible, in the nature of things, that we

What would life be without the beliefs for which science leaves no place—such as the belief in moral freedom?

could be or do anything different. We shall find that, under such conditions, matters would in some respects be less changed than we might imagine. Certain principles of conduct would still remain operative in our minds, for if these were absent society could no longer exist; and criminal acts we should still punish by law, in order to associate them with ideas of discomfort and suffering, and thus reduce to a minimum the inclinations of men to commit them. But apart from our views with regard to legal conformity, our whole system of moral judgments, of likes and dislikes, of contempts and reverences, would be revolutionised.

We could no more mentally condemn a man for being a coward, or a traitor, or cruel, or dishonest, or selfish, or monstrously and disgustingly vicious, than we could condemn him for being crippled or unable to walk straight. And besides losing the luxury of being able to condemn our neighbours, we should all of us lose something also, less pleasant but far more important—namely, the power of condemning ourselves. Now there is no more effective instrument of self-restraint in existence than the knowledge on a man's part that, if he acts in a certain way, he will have to submit to his own condemnation of himself; but if once he is convinced that, no matter what he does, he will be doing what he necessarily must do—that he could not do anything different, and that not he but Nature, whose creature he is, is responsible for it—self-condemnation will be impossible, his whole dread of it will

be gone, and one entire side of his moral self will be paralysed.

Nor is this all. Amongst the consequences which would follow on the loss of our idea of freedom are others, more important still. Besides losing our power of condemning ourselves and others, we should lose our power of esteeming ourselves and others likewise. All the higher developments of friendship, love, and admiration would sink into the same grave that has engulfed condemnation and hate. A deed of heroism, just like a deed of cowardice, would be recognised by us as the inevitable result of a given set of circumstances acting on a given temperament. The most devoted attachment of parent, friend, or lover would appear to us in a similar light. It would resemble the movement of one substance magnetised by another, and capable, under the circumstances, of conducting itself in one way only. What sort of change, then, would this new conception of things produce in our general consciousness of the character and the value of life? It is needless to insist—for few who grasp the significance of the question will deny—that all the higher, the deeper, the more delicate, the more interesting elements in life would be annihilated. With the banishment of the element of spontaneity all zest or meaning would vanish from human intercourse. The instinct of self-preservation, the instinct of social order, and the instinct to satisfy appetite—these would survive, but the heart of life would be gone. Vice and virtue would suffer a similar degradation, and would

A practical belief in determinism destructive of all mental civilisation.

A belief in freedom and spontaneity implied in all that is most valuable in human experience.

forlornly meet each other on terms of stolid equality.

The truth is that nothing that any human beings do or are has any real value for us, except on the latent supposition that it is possible for them to be or to do something different, and that thus what they do or are represents a vital act of personal and spontaneous will, instead of being merely the outcome of a long train of causes which lose themselves in the history of the general evolution of the universe. Apart from this vital element, feeling and action would lose nearly every quality for which men have hitherto valued them. Why should a child be devoted to even the fondest mother, if it knew that its mother could no more help loving it than the sun on a fine day could help shining in at the window? Could anything more uninteresting be imagined than the fidelity of an automaton friend, or anything less romantic than a passion for an automaton mistress? In short, we have only to eliminate freedom from our conception of human nature, and we shall find that we have eliminated the essence of all moral and all social civilisation.

And now let us turn to the doctrines of God and immortality, and consider how life would be affected by a similar elimination of these. For our present purpose, to do this is not indeed strictly necessary, because if we do but succeed in showing that this one doctrine of freedom is really essential to life as men are resolved to live it, we shall have estab-

lished in theory everything for which we are now contending. We shall have established the fact that our whole system of practical life involves the assertion of a principle for which scientific observation and analysis can discover no place in the universe, and which the mind is incapable of representing consistently to itself; and if once we admit that we are at liberty to believe in the doctrine of freedom, a belief in God and in immortality, despite all the evidence against them, will not present to our minds any additional difficulties. It will be well, however, to show that a belief in these two doctrines, besides being not less reasonable than a belief in the freedom of the will, is also essential to the logical and practical completeness of that moral and spiritual life of which a belief in freedom is the foundation; and I shall present to the reader's notice certain evidences that such is the case which our religious apologists appear generally to overlook, and which are certainly taken from quarters where one hardly would expect to find them.

That a belief in these doctrines is essential to the life that is avowedly religious is, of course, a self-evident fact, but we need not here insist on it; for the question now before us comes practically to this—whether the religious life itself is an essential element of existence: and in order to see if it is so, we must consider not the religious life itself, but such other elements as may happen to be bound up with it. Let us then suppose, as we supposed with regard to the doctrine of free-will,

that the doctrines of immortality and of God have been altogether eliminated from our consciences, and consider what effect their eliminations would produce on life besides depriving us of the satisfaction which we derive from the exercise of devotion. We shall find that these effects would be incalculable, and would be almost more remarkable outside the church walls than within them. They would consist of a shrinkage in the importance, interest, and significance which we are able to attribute to human life in general, and to the part played in it by ourselves as individuals in particular; and with the growth of scientific knowledge, and the habit of completely assimilating it, this shrinkage would become more marked, and its moral results more desolating.

The reasons why this would be the case are perfectly easy to understand. It is idle for any one to pretend that the enlargement of our astronomical knowledge, and the consequent reduction of the earth from the central mass in the universe to a minor star in a paltry and parochial system, has not had the effect of diminishing, to an incalculable degree, the importance of the human race in the minds of all thoughtful men; and it was an instinctive prevision of this effect by all the theologians of Christendom that impelled the Protestant Churches, no less than the Church of Rome, to employ every weapon in the armoury of violence, sophistry, and desperation in order to obliterate the discoveries and speculations

of Copernicus, Giordano, Bruno, and Galileo. Astronomical knowledge, however, has been only the first of the scientific agencies which have been operative in reducing the importance of man in his own eyes. Still more efficacious have been the means of rapid travel and the rapid communication of news which have pointed the moral already taught by the stars, and increased our miserable familiarity with the littleness of man in space; whilst the facts which are now being revealed to us with regard to his social evolution are diminishing, though they seem to be enlarging, his importance in terms of time. The shrinkage of the world under the influence of the steamship, the express train, and the telegraph is too familiar to all of us to require more than passing mention; but the effect of the evolutionary theory on our conception of the human drama has been so often misinterpreted by weak and sentimental enthusiasts that it will be well to point out to the reader what it necessarily tends to be.

In the evolution of societies, just as in the evolution of species, the invariable rule, the invariable method of the process, is the subordination of the individual to the type, and the subordination of one type to another in a seemingly endless series. Now, as I pointed out in a previous chapter, the whole meaning of life, so far as religion is concerned, depends on the experiences, the conduct, and the character not of the type but of the individual; and in this respect ordinary thought agrees absolutely

A belief in God and immortality necessary to make the process of history and evolution rational.

A belief in God and immortality necessary to make the process of history and evolution rational.

with religion. Indeed, it cannot do otherwise. For unless men were conscious beings, who suffered, and loved, and purposed, we could not talk about life having any meaning at all; and, apart from the individual, no love, suffering, or purpose exists. Hence, since we see that the objective side of progress is the continual sacrifice of the logical end to the means, progress or evolution will have no significance at all unless the individual has some personal destiny beyond that of being sacrificed to a purpose in which he is not himself included; whilst even if we suppose that the great evolutionary process may have some supreme significance beyond our power of apprehension, it can certainly have none unless there is a conscious God, beneath whose divine vision and in obedience to whose will it accomplishes itself.

In other words, the great primary effect which a belief in God and immortality produces on human life is to free it from the stifling limitations imposed on it by time and space, by failure and imperfection, and to give us, in spite of our isolated position and our transient inheritance in the universe, some elevating and sustaining connection with the infinite, with the perfect, and with the eternal. And that this connection with a larger and loftier existence can be conceived of as possible only on the supposition that the belief in God and immortality is true, is a fact which becomes clearer with every new discovery of science, and with every new attempt of our modern ethical thinkers

to construct a philosophy of life from which religious belief is absent.

I have said already that amongst the evidences of the practical value of these beliefs I should introduce some to the reader which would be taken from an unlikely quarter. That quarter is the ethical literature of the monistic philosophers themselves; and of all the evidences at our disposal, the most valuable are to be found there. Of these philosophers let us take as typical examples the two who, in this country, are best known and most highly distinguished. I refer to Professor Huxley and Mr. Herbert Spencer. Each of them has devoted much of his talents and energies to constructing, or at least suggesting, some practical theory of life which should satisfy the requirements and aspirations of human nature without any assistance from the inadmissible assumptions of religion; and the results which have been achieved by them are as follows. They have both succeeded, and succeeded without any difficulty, in drawing up, or indicating, a general rule of conduct, to which, in the interests both of himself and the society he belongs to, it is highly desirable that every human being should conform; but having drawn up their rule, they both alike recognise—although the recognition is neither clear, sustained, nor consistent—that in order to induce the masses of mankind to conform to it, some stimulus is required beyond a theoretical recognition that conformity to it can be amply justified on grounds of social utility. They recognise that life

Men of science, as moral philosophers, recognise the necessity of some belief that shall be the practical equivalent of religion.

Chapter 12

Professor Huxley, whilst declaring the reign of causation to be universal and denying freedom, nevertheless attempts to escape from the doctrine of determinism.

must be shown to contain some element which appeals to the moral and spiritual imagination of the individual, which lifts him out of the sphere of his ordinary selfish interests, not by destroying his interest in self but by transfiguring it, and which makes him feel that conformity to the moral rule is not only the secret of the life that is most useful to society, but is the secret of the life that is amplest and most satisfying for the individual also. They recognise, in short, though the doctrines of religion are rejected by them, that a belief in their truth fulfilled a social function essential to the development and existence of life in its higher forms, and that this belief being not any longer possible, it is necessary to provide ourselves with some mental or emotional substitute.

In the first place, then, let us consider what Professor Huxley says with regard to the doctrine of freedom. As every one knows, he was foremost amongst the scientists of the nineteenth century in insisting that the development of science meant, before all other things, "the extension of the province of causation," and the consequent banishment from our minds of the very idea of free-will or spontaneity. Such, then, being his attitude when he spoke as a man of science, what was his attitude when he spoke as a practical man and a moralist who was going to apply the truths which science teaches us to life? He admitted that had we really to accept the dominion of causation as universal, there would be practically "no

escape for us from an utter materialism and necessarianism . . . which would drown his soul, paralyse his energies, debase his moral nature, and destroy the beauty of his life." It is, therefore, Professor Huxley continued, necessary for the moralist to convince the world at large that science does not in reality inflict on us this paralysing doctrine; and in order, he said, to perform this important feat, all that the moralist requires is the help of a little sound philosophy. Let us consider, he said, what is really this terrible so-called necessity with which the dominion of law and the uniformity of nature threatens us. "Truly," he replies, "it is a most gratuitously invented bugbear. I suppose if there be a physical necessity, it is that a stone unsupported must fall to the ground. But what is all we really know and can know about this phenomenon? Simply that in all human experience stones have fallen to the ground under these conditions, that we have not the smallest reason for believing that any stone so circumstanced will not fall to the ground, and that we have, on the contrary, every reason to believe that it will so fall. But when, as commonly happens, we change *will* into *must*, we introduce an idea of necessity which has no warranty that I can discover anywhere. Force I know, and law I know, but what is this necessity except an empty shadow of my own mind's throwing?"

Professor Huxley's attempt to escape from determinism, whilst he denies freedom.

We will examine the nature of this remarkable argument presently. For the moment it will be

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 Professor
 Huxley's
 moral theories.
 There is no
 place for moral
 motive in
 them.

enough to point out that it shows how even monistic philosophy is forced to recognise the importance of one of the doctrines of religion, and we will now go on to see how, in the same way, it is forced to recognise the importance of the two others.

Obedience to the moral law, Professor Huxley saw and admitted, is producible only by the prevalence of an idea of duty. He saw also that in order to save ourselves from moral and mental retrogression, it is absolutely necessary that we give to the moral law not only our obedience, but also our impassioned co-operation. The true rule of life is, according to him, "to devote oneself to the service of humanity," . . . "to pity and help all men to the best of one's ability," "to be strong and patient," "to be ethically pure and noble," "and to push our devotion to others to the extremity of self-sacrifice." The fulfilling, however, of such commandments as these involves, as Professor Huxley admits, considerable struggle and self-denial, and he also admits that such struggle and self-denial would be impossible without the stimulus of some quasi-religious motive. Where, then, is the requisite motive to be found, since a future life and the love of God are denied to us? It is to be found, says Professor Huxley, in the beauty of ideally ethical conduct—the beauty of such conduct as that which has been just described. Religion, in fact, he continues, when its meaning is rightly understood, is nothing more than "that reverence

and love for the ethical ideal, and the desire to realise that ideal in life, which every man ought to feel." "That he ought to feel it," says Professor Huxley, "is surely indisputable; and Agnosticism has no more to do with the matter than it has with music or painting."

Chapter 12

Mr. Herbert Spencer's attempts to find a substitute for theistic religion.

The reader will here see how one of the most ferocious opponents of religion is bit by bit endeavouring, as a practical man, to build up an equivalent for each of the three doctrines which he made it his principal mission as a man of science to repudiate. And now let us turn to Mr. Herbert Spencer, and we shall find him doing precisely the same thing. It is true that Mr. Spencer does not seem to feel the necessity as keenly as Professor Huxley does for restoring as a practical truth the doctrine of free-will when he has banished it as a speculative falsehood; but with regard to the necessity for finding some effective substitute for the other two doctrines of religion—the doctrines of God and of immortality—Mr. Spencer is even more emphatic than Professor Huxley himself. Unless we can find a means of enlarging life in a manner similar to that in which these two beliefs enlarged it, men will inevitably, according to Mr. Spencer's view of the matter, sink down into the slough of what he calls "the relative and the immediate," from which, he says, "it has, since the beginning, been the all-essential office of religion" to redeem them.

And how is religion to redeem us from the

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relative and immediate now, without the assistance of another life and of God? It will do so, says Mr. Spencer, by directing our attention to the fact that we ourselves, and all other phenomena, are manifestations of an "omnipotent and incomprehensible power." "The consciousness of this power," he continues, "is the consciousness on which religion dwells"; and by dwelling on it our sense of the meaning of life and the solemnity of moral obligation is sustained and stimulated as effectively as it was by the creed of theism. Everything that was vital in that creed we retain. We only get rid of its elements of pretended knowledge, the absurdities of its ignorant dualism, and the crudities of its theological anthropomorphism. The mystery and the immensity of the Unknowable, and our knowledge of our own connection with it, make us regard ourselves "as elements of that great evolution of which the beginning and end are beyond our knowledge and comprehension"; and in especial they vitalise our whole moral and spiritual life by forcing on us the following reflections, which are expressed by Mr. Spencer thus: "It is not for nothing that a man has in him these sympathies with some principles, and repugnance to others. He is a descendant of the past, and he is a parent of the future, and his thoughts are as children born to him, which he may not carelessly let die. He, like every other man, may properly consider himself as one of the myriad agencies through whom works the Unknown Cause; and

when the Unknown Cause produces in him a certain belief, he is thereby authorised to profess and act upon this belief."

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 has the quality
 of an act of
 will

It is impossible to imagine stronger testimony than this to the fact that some system of doctrine equivalent in its effects to the doctrines of theistic religion is an element absolutely essential to the higher civilisation of man. We may therefore assume, without dwelling on this point further, that our grounds for believing in the doctrines of theistic religion—or in some practical equivalent, if such can be found—are the same grounds as those on which we believe that the progress and ambition of man, and the development of his highest qualities, are in some sort of harmony with the underlying realities of things, and are not a species of tumour in a body diseased by ignorance.

And here we are brought to the chief and to the last of those questions with regard to which science is able to tell us nothing. Indeed it is the question which embraces all the others. Is the spiritual, intellectual, and social development of the human race a fact which has any meaning, or has it none? This is a question which cannot be answered by an appeal to external evidence. It can be answered only by an act which is at once an act of belief, of common sense, and of will—an act which, for practical purposes, creates the truth which it affirms. This act, indeed, is of precisely the same nature as that by which we affirm the existence of an external world. All thinkers admit that by no

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logical process can any man prove to himself that he is not the sole being in the universe. It is perfectly true, as we have seen in a former chapter, that when once we have assumed the existence of other conscious beings, the objective reality of the universe which both they and we inhabit follows as a consequence which cannot be denied without absurdity; but the act of breaking through the shell of what philosophers call solipsism is not an act of the reason, but of some other faculty which is at the same time superior to reason and subsidiary to it.

No one has shown this more clearly than Hume, who ought to be regarded as the philosopher not of scepticism, but of belief. For the ultimate tendency of his speculations, as he himself has said, is not to induce men to reject their ordinary beliefs, but to convince them that their ordinary beliefs do not rest upon reason. "Should it be asked me," he says, "whether I be one of those sceptics who hold that all is uncertain [and doubt the existence of anything outside themselves], . . . I reply that this question is entirely superfluous, and that neither I nor any other person was ever sincerely and constantly of that opinion. Nature by an absolute and uncontrollable necessity has determined us to judge as well as to breathe and feel, . . . and has antecedently implanted in the mind and rendered unavoidable a faculty" which does as a fact assure us of "the existence of body"—that is to say, of

other things and people ; and to the testimony of this faculty we one and all surrender ourselves, though “by none of the arguments of philosophy are we able to maintain its veracity.”

And what Hume has shown to be true with regard to our belief in the externality of things is, with the exception of one point of difference, true with regard to our belief in the value of human development. The point of difference between the two beliefs is this, that our belief in the externality of things is, as Hume says, thrust upon us. We can none of us escape from it. Our belief, on the other hand, in the value of human development and in the growing accord of human nature as it develops with some reality which is both akin to it and above it, is a belief which is an act of will—a belief in which the believer’s nature plays an active and a bracing part. It is possible to lose this belief. Many people have lost it, and the loss of it may, in the case of individuals, produce no worse results than a speculative sadness or indolence ; but a race or a civilisation which should lose it would have lost the vital principle to which its development was due, and would inevitably in process of time sink back to a lower level, or—what is far more probable—be exterminated by more virile competitors. This belief in human nature is, in fact, as essential to civilisation as a good circulation or a sound nervous system is to the vigour of the body ; and all nations who have risen above barbarism have entertained it.

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Men of science, as moralists, admit that a purely scientific conception of life would ruin life.

And now let us return to the point which specially concerns us here. We have seen that on the admission of the school of thinkers which is most hostile to the doctrines of religion, as we have understood the word, it is essential to civilisation, and to all elevation of life, that if these doctrines be discarded, some equivalent be put in their place. We have seen how Professor Huxley, after proving the universality of causation, declares that a belief in necessarianism would paralyse all our activities, and that the old religious doctrine of free-will must be restored in the negative form of an absolute denial of necessity. We have seen how Mr. Spencer admits that the doctrines of God and immortality must be replaced by others which will have the same effect of redeeming us from the slough or the prison-house of "the relative and the immediate" and connecting us with the great power in whom everything has its being. And now let us go back again to the details of the proposed substitutes which these eminent scientific thinkers desire us to accept on the ground that, whilst the doctrines of religion conflict with the facts of science, these are in complete harmony with them, and indeed grow out of them. Let us take Professor Huxley's substitute for the doctrine of free-will first.

As the reader will have seen, the new philosophical nostrum is based on an attempt to establish a fundamental distinction between things which certainly *will* happen and things which necessarily

must happen. If we are obliged to say that, given our character and our circumstances, such and such actions on our part *must* result as their consequence, then, says Professor Huxley, our faculties will no doubt "be paralysed by utter necessarianism"; but if, on the other hand, we find that, instead of saying that the actions *must* result, we are obliged only to say that they very certainly *will*, a load will be lifted from our backs, we shall spring into spiritual freedom, and at once become the happiest and most unparalysed creatures possible. Now if this argument of Professor Huxley's has any meaning at all, it can mean only that, for anything we know to the contrary, the first cause of the universe might have arranged the universe in a manner different from that in which it has been arranged actually, and that therefore the laws of the universe have in this sense no necessity at the back of them. But what has an idea like this to do with any practical question? How will it liberate anybody from the paralysing necessarianism of the moment? Professor Huxley admits—indeed he was a most vehement expounder of the view—that the principle of causation applies to thought and will and conduct no less rigidly than it does to all other processes of nature. Certain characters and certain circumstances being given, he maintained that such and such actions will follow not less inevitably than the falling of a stone to the ground, if the hand supporting it is withdrawn; and what we know about stones, he says, is that

The absurdity of Professor Huxley's attempt to make his moral denial of determinism agree with his scientific assertion of universal causation.

they have, when unsupported, always fallen to the ground in the past, and that thus "we have every reason to believe" that they will continue to do so in the future. Now if we have any reason for being practically certain that they *will* fall, is anything gained—is our idea of the matter changed—by our telling ourselves that though they certainly *will* fall, we have no grounds for saying that they *must*? If some one had held a loaded pistol to Professor Huxley's ear and had offered to pull the trigger, the professor would hardly have been reconciled to the threatened pull being given by reflecting that though his death would, as a matter of fact, result from it, it would not be accurate for a philosopher to say that it *must*. And with action and volition, as the result of preceding causes, the case is precisely similar. Professor Huxley's doctrine, which is to redeem men from utter moral paralysis, amounts to telling them that, though the actions of all men, since men began to be, have been absolutely predetermined for them by an unbroken train of causation, and though there is every reason to believe that they will be always so determined in the future, there is no necessity why things should be thus arranged, and that at any moment any one of us might become blessedly free, just as stones at any moment might begin to fly upwards.

We need not consider this solemn nonsense longer. But although in itself it is nonsense, it is highly interesting as an example, firstly, of the

vividness with which a thinker like Professor Huxley realised that the doctrine of freedom—a doctrine essentially religious and extra-natural—is implied in every conception of life which rises above the lowest; and secondly, of the absolute impossibility of accommodating this doctrine to the facts of the universe as science and observation reveal them to us.

And now let us turn to the passage which I quoted from Mr. Herbert Spencer. This is interesting as an example of the importance which even the most thoroughgoing of monistic thinkers, when they quit the domains of science, and reason as practical men, are compelled to place on the other two doctrines of theism—the doctrine of God and the doctrine of immortality—as a means of lifting life above the immediate and the relative; and it is still more interesting as an example of the attempts of monism to find a substitute for these doctrines which shall harmonise with monistic science.

In all the annals of intellectual self-deception it would be hard to find anything to outdo or even to approach the fantastic absurdities of Mr. Spencer in search of a religion. He invites each man to consider and to reverence himself as one of the “myriad causes through which the Unknown Cause works,” and to remember that “his sympathies with some principles and his repugnance to others were not implanted in him for nothing,” and that “his thoughts are like children, which he may not carelessly let die.” Now, examined in the light

Mr. Herbert Spencer's religion of the Unknowable merely a vague anthropomorphic theism in disguise.

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of Mr. Spencer's own philosophy, what can all this mean? According to his philosophy, what a man does or thinks can have no effect whatever, conceivable to ourselves, beyond such effects as it produces within the limits of this planet. But how can any of these effects be connected with the condition of the universe in such a way as to enable a consciousness of our oneness with the universe to inform us that one set of effects should be aimed at by us rather than another? "It is not for nothing," says Mr. Spencer, "that the Unknowable has implanted in man certain impulses." Surely here is anthropomorphism with a vengeance. What is this but the old theologian's doctrine of design over again? This conception of things means, if it means anything, that the Unknowable has implanted in us one set of sympathies and principles in some sense in which it has not implanted another set. What idea could be more inconsistent with the whole teaching of monism? If Mr. Spencer's philosophy has any consistency at all—any unifying idea at the back of it—this arises out of the principle that the Unknowable, the Universal Substance, works not only through some of our thoughts and actions, but through all of them; and that all alike—bad, good, and indifferent—are necessary incidents in a single cosmic process, every separate part of which is involved in all the rest, and essential to it. How does this doctrine allow of our telling ourselves that the Universal Cause, of whose character we know

nothing, would prefer that we did one necessary thing rather than another necessary thing, and that it is open to us to co-operate with the will of this mysterious gentleman, or not to do so? To questions like these there is no possible answer. Mr. Spencer's entire attempt to engraft a practical religion on his monism is neither more nor less than a re-introduction of theism, called by another name and deprived of its logical coherency, so that it falls to pieces at a touch, like a watch without its screws; whilst as for the Unknowable, when he deals with it in this connection it resembles the God of the theist in precisely the same degree that a man with his head cut off resembles a man alive. There is every intellectual objection against Mr. Spencer's religion that there is against theism; and whilst theism internally is instinct with meaning, Mr. Spencer's religion has none.

And now, before quitting this subject, let us return once more to Professor Huxley and see how he, a short time before his death, endeavoured to supplement his own doctrine of freedom by providing us, just as Mr. Spencer has endeavoured to do, with some ideal belief which may elevate and expand our lives and give them some moral meaning in this cosmos of evolved phenomena. The nature of this endeavour is explained by Professor Huxley in his well-known lecture on "Evolution and Ethics"—one of the last of his public utterances. In this lecture, with a pathetic and forlorn ingenuity, he endeavours to find in that

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 Professor
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system of things which alone his science recognises some foothold for morality, independent of what he calls the cosmos. Now the essence of the doctrine of evolution is, he says, "That the whole world, living and not living, is the result of the mutual interaction, according to definite laws, of the powers possessed by the molecules of which the primitive nebulosity was composed." But evolution, or the "cosmic process," as in this lecture he prefers to call it, he frankly recognises to be altogether non-moral, and only by being non-moral, to escape being morally monstrous. Out of the cosmic process, however, he says there arises another—namely the "Social" or the "Ethical process," which attacks the cosmic process at every step, and substitutes for it a process . . . the end of which is not the survival of those who may happen to be the fittest, in respect of the whole of the conditions which exist, but of those which are ethically the best. . . . "The history of civilisation," he proceeds, "details the steps by which men have in this way succeeded in building up an artificial world within the cosmic. Fragile reed, as he may be, man, as Pascal says, is a thinking reed; and there lies within him a fund of energy, operating intelligently, and so far akin to that which pervades the universe, that it is competent to influence and modify the cosmic process." Professor Huxley's whole argument is summed up in these few sentences: and what does his argument come to?

None of "the wretched little curates," at whose apologetics he delighted to sneer, ever committed himself to an argument more transparently and more feebly false. In the first place, what is less honest or more unscientific than the manner in which he begs the question, by confining the term "cosmic process," which naturally suggests and includes all the processes of the universe, to the single process of selection, or the survival of the fittest? And yet on this procedure his whole contention depends. He confines the term "cosmic" to this one particular process, in order that he may represent any process which is opposed to this one, as being a process which is opposed to the cosmic also—a process by which, within a cosmos essentially natural, man builds up for himself an artificial world which is independent of it. To call this pitiable piece of card-sharping with words and ideas sophistry is to pay it a high compliment. If science teaches us anything—so says Professor Huxley—it teaches us that the whole "world, living and not living," has been evolved from the primitive cosmic vapour by the action of laws immanent from the beginning in its molecules. To doubt this doctrine is, he says, "to doubt science." How, then, is it possible that there can be any real distinction, or that there can seem to be any to anybody but "wretched little curates" and their equals, between the artificial and the natural, between evolution and ethics, between man's acts and those of the cosmos? Every act, every

The hopelessly illogical character of Professor Huxley's ethical reasoning.

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Professor Huxley's testimony to the practical necessity for religion, and the impossibility of reconciling the essentials of religion with the essentials of science.

thought, every tendency, that originates in the brain of man is an integral part of the one great process of nature; and what he calls the ethical process is opposed to what he calls the cosmic only as molecular attraction is opposed to molecular repulsion. At best, it has for its end merely some slow, partial, and transitory amelioration in the momentary lot of a vanishing race of beings; and if the cosmos is, as Professor Huxley says it is, essentially non-ethical, or even anti-ethical in its totality, it cannot, in the passing action of one of its minutest parts, contain any principle which is opposed to its character as a whole. Professor Huxley, when he attempts to establish a contrary conclusion, is broken by the monism of which he is himself the impassioned exponent; and the reasonings by which, in the interests of man's ethical dignity, he seeks to deflect the course of his monistic logic are like the antics of a barking terrier in front of a locomotive engine.

Here again, then, we have one more example of the need which men of science feel for some substitute for theistic religion, and the absolute impossibility of supplying it without violating their own principles. I need not, however, insist upon this point longer. As I said in the opening chapter of the present volume, the kind of reader to whom I here am most directly addressing myself is the reader who is convinced already that religion is essential to life, but whose only difficulty is the difficulty of assenting to what religion teaches—of finding a

place for it in the order of things which science reveals to us; and I have called his attention to the opinions and the arguments of those who deny the credibility of theism in order to show him, *first*, that no logical substitute for theism can be devised; *secondly*, that the substitutes, such as they are, are no less inconsistent than theism is with the universe as science reveals it to us; and *thirdly*, that religion—an assent to the theistic doctrines—claims its place as an element in life, not only on the grounds that it ministers to and interprets the special aspirations and emotions which we commonly call religion, and which, in their more urgent form are confined to a small minority; but also on the grounds that it is essential to and implied in the entire development and exercise of the higher human faculties generally, and that therefore, if we affirm the truth of the primary doctrines of religion, although we know that we cannot ourselves by any intellectual device reconcile them with the truths of science, which at the same time we accept also, we are not asserting the coexistence of those seemingly incompatible truths without having grounds as strong for asserting the former as we have for asserting the latter, though they are not of the same kind.

In the following and final chapter I shall endeavour to place this fact in a yet clearer light.

The practical necessity for religion, in spite of its incompatibility with science.

CHAPTER XIII

THE REASONABLE LIBERATION OF BELIEF

The two
equally neces-
sary, and yet
irreconcilable
systems of
belief

DESCRIBED in a few words, then, our situation is this. Life presents to us two great orders of things. One of them is the cosmos, or the world of objective facts. The other is the moral world, or the world of subjective values. The former consists of the universe, with ourselves as phenomenal parts of it. The latter consists of the social and individual life of men—of their pleasures, tastes, activities, duties, and ideals—as expressed in terms of the value which men put on them. These two worlds we interpret in two different ways. The cosmic world we interpret by the exact methods of science, and the results are such that an acceptance of them is forced by the evidence on our judgment, the judgment itself being passive; as happens, for example, when we are told that the highest peak of the Himalayas is higher than the highest peak of the Alps. The moral world we interpret by standards which we supply ourselves, and our judgment is not passive but active; as when, for example, we assent to, or dissent from, the assertion that the genius of Goethe

was higher than the genius of Dante. It is easy to see that here, where the standard of truth is a variable, no science strictly so-called can exist.

These two worlds, then—the cosmic world and the moral—are apprehended by us in different ways, or by different faculties of our nature; but yet the overwhelming majority of reasonable and civilised men assent to the reality of the latter no less than to that of the former. It would be difficult to imagine a more ludicrous human being than the philosopher who sincerely believed that the earth and the solar system had no existence outside his own personal consciousness; and it would be difficult to imagine a more contemptible character than that which would result logically from the acceptance of so insane a principle. And yet it may well be doubted whether a man who seriously denied the objective validity of our subjective moral judgments would not cut a still poorer figure in the eyes of the world in general. If such a man, in any civilised country, should address a meeting representative of any class of society, and taking one after another the moral and æsthetic standards by which civilised men ever since civilisation began have measured and ranked their ideals, duties, activities, pleasures, tastes, and affections, should maintain that these standards corresponded to no objective reality, and that what it has been accustomed to call the highest developments of humanity are in no objective sense higher than what we call the lowest, not only would the devout amongst his audience be shocked at

The denial of religion and the denial of an external world are practically equal in absurdity.

opinions so wicked, but men of the world, men of taste, men of action, and men of healthy, plain common sense, would be impatient and contemptuous of opinions at once so stupid and so barbarous. Men, indeed, would not tolerate—or rather they are so constituted that they would not be able to tolerate—any surrender of that larger and deeper life of supposed spontaneity and freedom which has been theirs hitherto for one which is narrower and shallower and is paralysed by a sense of necessity. They would not tolerate a world from which duty, poetry, the motives and principles of the higher activities and ambitions, and the most interesting forces of affection, were all alike expunged.

In other words, consciously or unconsciously, the whole civilised world, like an œcumenical council, has laid it down as a law of practical life that the moral nature and moral needs of men are, in some broad sense, a measure of objective truth; so that those beliefs are true which are involved in human development, and those beliefs are false by which human development is arrested. Now, as soon as we look at the matter in this light we shall find that our grounds for believing in the reality of the moral world are of the same nature as those in which we believe in that of the cosmic. Between the two beliefs there is, no doubt, this difference—that when once we have accepted the cosmic world as a reality, our judgment of it thenceforward is passive in the hands of scientific knowledge; whilst with regard to

the moral world our own personal judgment remains constantly active, in co-operation with the judgment of others; but the act of initial assent is, in each case, of the same nature.

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 Ordinary belief, not scientific belief, gives science its subject-matter.

Our belief in the reality of the cosmic world, from the stars to the chairs we sit on, is so universal and instinctive, that it never occurs to most people to ask themselves how they came by it; or else, if the question is suggested to them, they will answer that they derive it from reason and the evidence of their senses, just as they derive their belief in any other truth of science. It requires, however, only a slight effort of thought to understand that the real existence of anything outside ourselves is not in any sense a truth of science at all. Science does not give it to the world of ordinary men. The world of ordinary men gives it to science, and ordinary men themselves get it neither from sense nor reason. The senses merely give men certain internal ideas. The belief in the external world is an inference as to the causes in which these ideas originate; and reason, instead of supporting this inference that the causes must be external objects, entirely fails, as all thinkers now admit, to assure us of the existence of anything outside our individual selves. It is perfectly true, as Professor Clifford has shown, that if once we assent to the reality of other living and conscious minds, reason then can impose on us a belief in the world of matter which forms the common cause of all our similar experiences; but in taking this primary step

of believing that these other minds really are, reason can offer us no help whatever. It is a guide, if we follow it faithfully, not to belief but to scepticism. But in urging this fact are we urging the sceptic's conclusion that the reality of the external world is a fact of which we are practically doubtful? On the contrary, instead of declaring the existence of the external world to be doubtful, we are merely declaring that reason is not our sole source of certainty.

No one has shown this to be the case with more force and brilliance than Hume, who is popularly looked upon as the leader of modern scepticism. Hume has indeed shown conclusively that scepticism is the outcome of philosophy. The moral, however, which he drew from this fact himself, was not that we should become practical sceptics, but that no one except a madman will attempt to base his life on the data of philosophical reason. "My intention, he says, "in displaying so carefully the [sceptical] argument is only to make the reader sensible of the truth of my hypothesis that . . . belief [in the objective world] is more properly an act of the sensitive than of the cognitive part of our natures. Nature has not left this act to man's choice, and has doubtless esteemed it an affair of too great importance to be trusted to our uncertain reasonings." Reid, again, who, imperfectly acquainted with Hume's personal position, endeavoured to refute his scepticism with a philosophy of common sense, was driven himself to fall back on the precise

argument of his antagonist, and to declare that our certainty of the existence of the external world was due not to reason but what he called "an original instinct." So too in our own day Mr. Herbert Spencer has maintained that this same certainty, the force of which is quite irresistible, is not derived from any ordinary process of reasoning; whilst Professor Huxley frankly declares that it originates in an act of faith.

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Belief in the moral order characteristic of the most powerful and highly-civilised races.

Thus in assenting to the judgment of the civilised world generally and imputing an objective validity to that subjective value, which alone gives any meaning to the higher experiences of mankind, we need no more be committing ourselves to a guess or sentimental conjecture than we are when we assent to the proposition that there are other minds besides our own, and that there are stars and tables and chairs external to ourselves and them. On the contrary, it may be said that in assenting to this moral judgment we are performing the act, whether cognitive, instinctive, or sensitive, which is most signally characteristic of the highest and the strongest races. We are supplementing our assent to the reality of the cosmic world by a second assent of a nature essentially similar; and of these two worlds—the cosmic world and the moral—the latter always has been, for the highest and the strongest races, and must always continue to be, no less of a reality than the former.

Here, then, in this broad fact lies the reasonable basis of religion. Just as faith or instinct, having

Reason analyses the data supplied by ordinary belief in the cosmic and the moral world alike.

given us the cosmic world as a reality, science discovers the principles which underlie its phenomena, so faith or instinct, having given us the moral world as a reality, analytical reason and a study of the human character perform with regard to the moral world an office of the same kind. They discover the principles involved, by direct assent or implication, in the judgments, activities, actions, and sentiments of which human life, in its higher manifestations, is composed; and amongst these principles they find that the most fundamental are the three elementary doctrines which constitute the religion of theism—the doctrines that men are free and are not mere cosmic automata; that they have some life which outlasts the dissolution of the physical organism; and that between their lives and the supreme cause of the universe a personal relationship subsists in virtue of which human affairs are invested with a meaning and importance imperceptible to the eye of ordinary observation. It is true that these doctrines have not been held consciously by all of the higher races during the past history of the world; but these races have been animated at all events by unconscious or sub-conscious assumptions of which these three doctrines are the only logical expression; and with every advance which is made in positive knowledge, and with every enlargement in our conception of things which results from it, any substitute for these doctrines becomes more and more impossible. That such

is the case we saw in the preceding chapter, when we considered the substitutes offered us by two of the most distinguished thinkers who have addressed themselves to the task of discrediting the religion of theism. They admit that the function fulfilled by the doctrines of theism is essential. They demonstrate, by the absurdity of their attempts to supply us with a substitute for them, the fact that no substitute for these three doctrines is possible.

And now let me turn for a moment to another aspect of the question, which I have hitherto purposely kept in the background; and this is the question of an assent to the doctrines of religion regarded in itself, and not in its social consequences. The least religious of men, if possessed of ordinary intelligence, must recognise that religious emotion, or the religious attitude of mind, is, as a fact, characteristic of a large number of human beings. It is a fact as undoubted as the existence of the taste for fighting or music. The sense, however, of the need of a specifically religious life is, like the desire for music, very far from universal; and I have, therefore, in indicating the grounds which practical life affords us for assenting to the truth of the doctrines of theistic religion, dwelt rather on those facts of civilisation which are appreciated and valued by all, than on the spiritual needs and aspirations, which, though all of us have the germs of them in our nature, reach their full development in the natures of a few only. But the present argument would be very far from complete if I

The specifically religious emotions an important fact in human nature.

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failed to point out to the reader the complete and unique manner in which an assent to the doctrines of theistic religion liberates and rationalises the activity of the religious faculty. This faculty must be admitted, even by those who least appreciate it, to constitute at all events a remarkable potentiality of human nature; and when we realise that, under modern conditions of knowledge, the religion of theism alone is able to provide this faculty with the logical means of self-exercise, the congruity of this religion to the nature which human beings possess, and which has been imposed on them by some power outside themselves, affords us a further presumption that the doctrines of this religion are true.

Here, then, we find ourselves standing between two worlds—the cosmic world, with all that is implied in it, on the one hand; and the moral world, with all that is implied in it, on the other. On the one hand we have the world of uniformity, in which every event or fact is related to the universal cause only as a necessary effect. On the other hand we have the world of freedom, in which the Universal Cause has called into being causes having a freedom analogous to his own. Such being the case, when we consider either of these two worlds separately, we assert, as reasonable men, that each is no less real than the other; in experience, moreover, both these worlds are united; and yet, when the intellect compares them, we find that the two are contradictory. How are the two to be reconciled? Not

by attempting to rob the one or the other of those elements in it which are essential to its own internal cohesion; not by attempting to introduce into the moral world the analogy of physical processes; not by attempting to introduce into the cosmic world what the cosmic world shows no trace of—purposes, designs, interferences, breaks in an unbroken order. As reasonable beings we can unite these two incompatible worlds in a single reasonable synthesis by one means only; and this is by recognising that, with regard to life in its totality, the intellectual compatibility of propositions is no test of their truth.

To say this is neither more nor less than to say that the human intellect is an organ of capacities so limited that it is constitutionally unable to grasp life or existence in its totality, or even any of the individual facts of which life and existence are composed; and that if we allowed ourselves to believe in the existence of these things only which do not, when our intellect analyses them, confront us at last with contradictions, the plain truth is that we must content ourselves with believing in nothing. For not only are we unable to reconcile the cosmic world with the moral world, but we are equally unable to reconcile either of these worlds with itself.

The cosmic world—the world of things which we touch and taste and handle—is, as we have seen, in its totality, absolutely beyond the grasp of thought. Within a four-mile radius of an intellectual Charing Cross we can grasp and reason clearly about the

Each of these orders of things, as the human intellect apprehends it, is inconsistent not only with the other, but with itself.

Chapter 13

Our entire
idea of moral
conduct is in-
consistent not
only with
determinism,
but with free-
dom also.

various facts which it presents to us, but outside that radius our powers begin to fail us. We can neither assign to this world a limit, nor can we think of it as really illimitable. We cannot think of it as existing without a cause; and yet all the imaginable causes of it which human speculation can suggest—materialistic, pantheistic, or theistic—are alike, in this last analysis, composed of ideas that are contradictory.

And the same is the case with the moral world also. The moral life, as interpreted by the theistic religion, is, within a certain radius, absolutely simple and intelligible; but outside that radius the old contradictions are awaiting us which have baffled religious thinkers ever since the days of St. Augustine—the goodness of God, the existence of human evil; the omnipotence of God's will, the power of man's to oppose it. And to this we may add another which is connected with the will likewise. As the reader will recollect, when dealing with the question of will, we not only saw that unless the will was free—unless it was more than the agent of the motives supplied by circumstance—no such thing as moral responsibility could exist; but we saw also that unless the contrary were true likewise, and unless, in the acts which we are accustomed to call moral, the will were conditioned by motives of a very specific kind, these acts would possess no moral quality whatsoever. If St. Antony, for example, when accomplishing his resistances in the desert, had had none of the motives which we are

accustomed to associate with sanctity, his resistance would have been morally meaningless, if not psychologically impossible. Accordingly, in the very heart of the moral idea itself we are confronted by this curious paradox—by these two incompatible truths—namely, that moral action, when considered at close quarters, and analytically, is, from its very nature, deficient in that free principle which, when we are considering any such action synthetically, we all of us recognise as the first and most indispensable condition of it. Few better illustrations can be found than this of the inveterate co-existence of contradictions in even the ideas which are practically most clear to us.

Since, then, each of the two worlds—the cosmic world and the moral—is apprehended and accepted as a reality by a similar act of faith—by a sensitive, by an instinctive, and not by any cognitive process; and since each, when we thus accept it, is found to imply propositions which are, for the human intellect, absolutely irreconcilable and contradictory, we are performing no act of a new, unique, rash, and unreasonable kind in accepting the doctrines of religion as the principles of the moral world, together with the laws of science, which are the principles of the cosmic world; though it is absolutely impossible for us, by any mental ingenuity, to conceive how the latter are empirically susceptible of any union or co-operation with the former. In believing that God, freedom, and the immortal soul exist in the cosmic world, though that world reveals

To believe in the cosmic and the moral world together, not more irrational than to believe in either separately.

Chapter 13
 The folly of all
 attempts to
 discover a
 formal recon-
 ciliation.

no trace of them, we are doing no more violence to reason than we are when we assert, as we all do, that this cosmic world is real—that it exists outside ourselves, and that science, within limits, is its true, and its only true, interpreter.

If religion, then, in the face of modern knowledge, is ever to be re-established on a firm intellectual basis, this result must be brought about by a recognition of the intellectual truth that the existence of nothing in its totality can ever be grasped by the intellect; that the totality of things in general, and of each thing in particular, is a tree of such enormous girth that our arms are too short to clasp it, and, instead of meeting round it, extend themselves in opposite directions. If we learn to recognise the scope and the significance of this profound truth, we shall at once become conscious of a sense of intellectual emancipation; and in dealing with the facts of the cosmic and the moral worlds, we shall no longer feel ourselves bound either to sacrifice the one to the other, or to sacrifice our own honesty in fantastic and degrading attempts to effect in terms of the intellect a reconciliation between the two. Of such degrading attempts we have passed under review three kinds. First, there is that of the ordinary religious apologist, who, with desperate disingenuousness or ignorance, endeavours to vindicate the reality of God and of moral freedom by reading into the facts of science a meaning which they will not bear. Secondly, there is that of our quasi-scientific idealists, who, instead

of tampering with the facts of science in detail, endeavour to represent them as facts of an abstract and non-real world, and thus to absorb the cosmic world in the moral. Lastly, there is that of the modern scientific monists, who endeavour to absorb the moral world in the cosmic, and whilst rejecting the doctrine of religion, to supply us with a moral equivalent. And all these attempts are, as we have seen, failures. They are more than failures. They are ridiculous and ignominious failures; and if anything, in the eyes of ordinary reasonable men, could make the doctrines and the significance of theistic religion contemptible, it would be the arguments employed by our modern apologists to defend them. The fault does not lie with the character of the apologists personally. It lies with the character of the impossible task which they have undertaken. The cosmic world, with its uniformity, and the moral world, with its freedom, can no more be held together by the intellect, in such a manner as to form an intelligible whole, than two masses of wall, which are falling in opposite directions, can be held together with a postage stamp.

How, then, is this synthesis of the free and the necessary to be accomplished? The only answer is that it cannot be accomplished at all in any way which the logical reason—or, as Hume calls it, “the cognitive faculty”—can comprehend. But what philosophers cannot do to the satisfaction of the intellect, the mass of mankind does in obedience

The intellect
must definitely
accept its own
limitations.

Chapter 13

The synthesis of contradictions supplied by the whole experience of humanity.

to the practical reason—to “an original instinct,” as Reid calls it, or to “a primary instinct or prepossession” as Hume calls it. It unites the free and the necessary in a synthesis, the practical truth of which it attests from generation to generation by its love, by its blood, by its tears, by its joys, by its sorrows, and by its prayers. It will never be argued out of creating this moral world for itself, any more than it will be argued out of believing in the reality of the world of matter; and in order that it may fearlessly interpret the moral world to itself in terms of that religion which alone will give it meaning and coherence, the mass of mankind merely requires to be assured that it is doing to reason and common sense no greater violence when it believes in God, freedom and immortality, than it is when it believes in the existence of ponderable matter and of ether; and that no greater contradiction in thought is involved in a deliberate belief in the co-existence of the two incompatible worlds—the cosmic world and the moral—than is involved in a belief in the existence of either of these worlds separately.

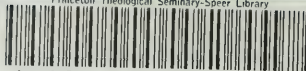
At present our faculties are paralysed because we insist on overstraining them. Led astray by the idea that if two cognate beliefs are true, the human intellect must be able to attest their truth by reconciling them, we find two systems of belief equally essential to our existence, and because we are unable to reconcile them, we are afraid of adhering to either. Let us only get rid of this

utterly false idea that no two beliefs can be true which the intellect is unable to reconcile; and we shall then, with equal confidence, be able to accept both. Let us remember that we may know something—that we may increase our knowledge indefinitely—of many portions of existence; but that by no intellectual device can we fit all the portions together. If we try to comprehend them all in a single system of philosophy, we will find that in explaining one part we have to leave another inexplicable;—that philosophy, in fact, is like a coat which we are able to button across our stomach only by leaving a broken seam at our back. We must learn, in short, with regard to the deeper things of life, that the fact of our adopting a creed which involves an assent to contradictories is not a sign that our creed is useless or absurd, but that the ultimate nature of things is for our minds inscrutable.

Reasonable acquiescence in the co-existence of two orders of things not reconcilable in terms of reason.

THE END

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